

University News

JAWAHARLAL NEHRU UNIVERSITY SPECIAL CONVOCATION



CHIEF GUEST

CHANCELLOR

Prof. Andreas George Papandreaou, Prime Minister of Greece, receiving the Degree of Doctor of Letters (Honoris Causa) from Dr. D.S. Kothari, Chancellor, Jawaharlal Nehru University, at a Special Convocation held in New Delhi.

GAUHATI UNIVERSITY

Advertisement No. 2 of 1986.

Applications are invited for the following posts in the prescribed form given below:—

1. Professor of Agri-Botany Specialisation —One post (permanent)
Specialisation —Plant physiology/Genetics & plant Breeding/Microbiology & plant pathology.
2. Reader in M.B.A. —One post (Permanent 6th plan).
Specialisation —M.B.A./M.Tech./M.Com./M.A. with marketing/Foreign Trade/Behavioural Science.
3. Reader/SSO —One post (Permanent 6th plan).
At least Second class post-graduate degree in Engineering (M.Tech./M.E.) or Doctorate degree in Science or equivalent research work of High standard. At least five years' experience in R and D of instruments or in Operation, repair and maintenance of modern instruments and five years teaching experience in his field of specialisation.
4. Lecturer in Agri-Botany Post-I —Two posts (Permanent)
—M.Sc. in Botany/Agri-Botany with specialisation in Plant Taxonomy.
Post-II —M.Sc. in Botany/Agri-Botany with specialisation in Ecology/Phycology/Bryology/Periodology.
5. Lecturer in Education Specialisation —One post (6th plan)
Specialisation —Open.

Scales of Pay :

- (1) Professor — Rs. 1500-60-1800-100-2000-125/2-2500/-
- (2) Reader — Rs. 1200-50-1300-60-1900/-
- (3) Lecturer — Rs. 700-40-1100-50-1600/-
- (4) S.S.O — Rs. 1100-50-1600/-

All post carry usual allowances admissible under the University rules in force from time to time.

ESSENTIAL QUALIFICATIONS

Professor :

An eminent scholar with published work of high quality actively engaged in research. Ten years' experience of teaching and/or research. Experience of guiding research at Doctoral level.

OR

An outstanding scholar with established reputation who has made significant contribution to knowledge.

Reader :-

Good academic record with a doctoral degree or equivalent published work. Evidence of being actively engaged in (i) research or (ii) innovation in teaching

methods or (iii) production of teaching materials.

About five years' experience of teaching and/or research provided that atleast three of these years were as lecturer or in an equivalent position. This condition may be relaxed in the case of candidates with outstanding research work.

Lecturer :-

(a) A Doctor's degree or research work of an equally high standard, and (b) Good academic record with at least Second Class (C in the seven point scale) Master's degree in relevant subject from an Indian University or an equivalent degree from a foreign University. Having regard to the need for developing interdisciplinary programmes, the degrees in (a) and (b) above may be in relevant subjects.

Provided that if the Selection Committee is of the view that the research work of candidate as evident either from his thesis or from his published work is of very high standard, it may relax any of qualifications prescribed in (b) above.

Provided further that if a candidate possessing a Doctor's degree or equivalent research work is not available or is not considered suitable, a person possessing a good academic record (weightage being given to M.Phil or equivalent degree or research work of quality) may be appointed provided he has done research work for atleast two years or has practical experience in a research Laboratory/Organisation on the condition that he will have to obtain a Doctor's degree or give evidence of research

of high standard within eight years of his appointment, failing which he will not be able to earn future increments until he fulfils these requirements.

Applications in Prescribed Form mentioned above in 7 (seven) copies together with an application fee of Rs. 20/- (Rupees twenty) and (Rs. 10/- (ten) in case of Scheduled Caste/Scheduled Tribe candidates) only by "CROSSED INDIAN POSTAL ORDER" drawn in favour of the Registrar, Gauhati University payable at Gauhati-781014 post office should be sent in an inner sealed cover superscribed application for the post of (Name of the post applied for) Advt. No. 2 of 1986 enclosed in an outer cover addressed to the Registrar, Gauhati University, Gauhati-781014 to reach him not later than 25th February, 1986.

Applications not submitted in the prescribed form mentioned above in 7 (seven) copies will not be entertained.

Number of this advertisement and name of the post must be referred to in the application.

Persons in employment should apply through proper channel or with no objection certificate from the present employer.

Candidates will be required to appear at an interview if and when called for at their own cost.

Canvassing directly or indirectly will be a disqualification.

M.C. Bhuyan,
REGISTRAR I.C.

PRESCRIBED FORM

1. Advertisement No.
2. Name of the post applied for
3. Name of the applicant in full
4. (in block letters)
5. Father's Name
6. Home address (in full)
7. Present address (in full)
8. Date of birth by Christian era
9. Age on the date of application
10. Nationality
11. Community (S/C, S/T)
12. Educational qualifications

*Examinations passed	Name of Board/University	Year of passing	Divs/Class	P.C. of marks	Remarks
1	2	3	4	5	6
H.S.L.C.					
H.S./P.U.					
B.A./B.Sc/B.Com.					
M.A./M.Sc/M.Com.					
Ph.D.					
Other Degree/Diploma					

*N.B. :- Attested copies of marksheets and certificates should be enclosed.

12. Past experience if any (Give details)
13. Research publications (Give details in a separate sheet of paper)
14. Present Occupation if any
15. Name of employer if employed
16. Basic pay drawn
17. Higher Salary
18. Name of two referees (Not related to the candidate) (1) (2)

I beg to certify that the particulars furnished above are true in all respects. I shall be liable to action at any time if found otherwise.

Date :

Signature of the applicant

UNIVERSITY NEWS

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Editor :

M.S. RAMAMURTHY

New Education Policy

AIU's Recommendations on Higher Education

There is an inseparable affinity between development of human resources in general, and higher education in particular, which is essential for the progress of a nation. Higher Education paves the way for country's well-being and its future by providing professional, managerial and skilled manpower for development. This calls for re-vitalization of the education system. Prime Minister Rajiv Gandhi, therefore, rightly emphasized the urgency of imparting high priority to the development of human resources.

In pursuance of the Prime Minister's policy statement for revitalisation of the education system, Sh. K.C. Pant, the then Education Minister suggested that the Association of Indian Universities (AIU) constitute a committee of the vice-chancellors to articulate its recommendations for formulating new policies for higher education. Accordingly, AIU prepared a document on 'New Education Policy' in April 1985 and forwarded it to the Ministry of Education, University Grants Commission (UGC) and other bodies involved in the formulation of the new policy.

As part of the national debate generated by the document "Challenge of Education a policy perspective", conferences and seminars were held throughout the country where a number of new ideas were thrown up. It was appropriate therefore for the Annual General Meeting of AIU on Nov. 29, 1985, to remit the subject to a Special General Body Meeting. The Special meeting held on January 8 & 9, 1986 was attended by over 50 vice-chancellors.

What follows are the highlights of AIU's Recommendations on Higher Education as adopted at the Special General Body meeting.

1. Objective of Higher Education

- * General dissemination, utilization and expansion of knowledge for national development
- * Need for dynamism and a new sense of purpose

2. Planning Strategy

- * Minimise inequalities in education, enhance quality of education, maintain standards and establish relevance of education to societal needs
- * Stress on expansion of distance education by greater accessibility and wide coverage

3. Management Aspects

- * Adequate facilities to existing institutions
- * New universities to be set up only after feasibility established
- * Functioning of universities to be reviewed by UGC and sub-standard degrees de-recognised
- * Enhanced support for colleges in backward and tribal areas
- * No political interference in universities and colleges

4. Autonomy and Accountability

- * Non-political role of Chancellor, who should safeguard university autonomy
- * Statutory provisions to safeguard university autonomy and Vice-Chancellor's status by the Central Govt.

5. Teacher's Status and Responsibility

- * Steps to avoid in-breeding and encourage mobility of teachers. At least 25% teachers to be from other universities
- * Code of professional ethics for teachers to ensure accountability
- * Teachers' pay scales and other benefits equal to the All-India services
- * Pre-service and in-service training of teachers to be strengthened

6. Financing of Higher Education

- * Plan allocation for higher education to be 25% of total education budget
- * Education budget to be raised to at least 6% of GNP
- * 100% UGC development grants for State Universities
- * Suitable norms for maintenance grants to universities and colleges
- * Capitation fee to be banned

7. Content and Structure of Courses

- * Undergraduate courses to be re-structured according to manpower needs
- * 10+2+3 system to be uniformly implemented in the country
- * Nexus between degrees and jobs to be strengthened. Delinking of degrees from jobs not desirable.

8. Professional and Technical Education

- * Effective forecasting of manpower needs for determining the national requirement of professional and technical graduates

9. Distance Education

- * Open Universities and Open Schools in all the States
- * Effective linkages of Indira Gandhi National Open University with State Open Universities and Institutes of Correspondence Courses

10. Implementation

- * Success or failure of adopted recommendations inevitably linked with strength of will and determination of decision-makers. □

K.C. Mahindra Scholarships

THE TRUSTEES OF K.C. MAHINDRA EDUCATION TRUST OFFER INTEREST-FREE LOAN SCHOLARSHIPS TO INDIAN NATIONALS FOR HIGHER EDUCATION ABROAD IN VARIOUS FIELDS.

Applications are invited for the K.C. Mahindra Scholarships for the year 1986 for advanced studies in Engineering, Natural Sciences, Humanities, Medicine & Business Management including the study of Military, Naval Aviation Sciences.

The maximum amount of scholarship payable to any scholar shall not exceed Rs. 20,000 - per academic year. Applicants for these scholarships are required to satisfy the following conditions :

- (a) They must possess a **FIRST CLASS** degree or an equivalent diploma of the same standard of a recognised Indian University.
- (b) They must have secured admission or at least have applied for admission in reputable foreign universities for courses commencing from September, 1986 but not later than February, 1987.

Candidates studying in the **FINAL YEAR** of the diploma or degree course are not eligible to apply for the 1986 Award, and their applications will not be entertained

Govt. and Quasi Govt. Officers with a creditable academic record, going abroad for specialised qualifications are also eligible to apply.

Preference will be given to students who are interested to pursue their studies in subjects important for the development of the country, such as Survey and Prospecting of the mineral resources of the country, Alternate Sources of Energy, like Solar, Wind and Tidal Energy, and Bio-gas Technology for rural areas; Oceanography; Off-shore Drilling; Harvesting of ocean wealth, like Sea-bed Mining, Fisheries and Exploration of other oceanic products; Water Management, Agricultural Research and Engineering, Transportation Economics, High-Tech, Electronics and any other emerging areas related to Science and Technology.

Preliminary applications should be forwarded to the Managing Trustee, K.C. Mahindra Education Trust, Civil Court, Mahakavi Bhushan Marg, Bombay 400 039 and should reach him not later than 28th Feb., 1986. Only upon receipt of full particulars, the prescribed application form will be sent to those candidates who are considered to have the requisite qualification.

Prescribed forms duly filled by the applicants together with necessary enclosures must reach the Trust Office before **31st March, 1986**.

The final selection of the candidates will take place in the first week of July, and the interview date will be intimated to the selected candidates during the second week of June.

Higher Education : Operational Strategy

G.B.K. Hooja*

• 'Challenge of Education: a policy perspective' issued by the Ministry of Education (now renamed as the Ministry of Human Resource Development) seems to have served its purpose. While presenting it, Shri K.C. Pant, the then Minister of Education, had said that this document was not the final statement of policy. It aimed to provide the basis for a nation-wide debate which would facilitate the formulation of new education policy. Based on the observations of experts, academicians and the consumers of education and educational products this document contained a very candid over-view of the state of education and pointers to the direction of future initiatives. This has enabled a meaningful debate to take place.

In this paper, it is intended to examine the policy frame in respect of higher education and to determine the items on the agenda for action without lamenting over the lapses.

Indian Education Service

The first meaningful proposal pertains to the constitution of the Indian Educational Service (IES). No educational reform, innovation or development can take place without the active and committed cooperation of the teaching community, which forms the delivery system of education. No University can rise above the standard of its teachers and, therefore, the recruitment, training and development of the quality of teachers is the basic essential of university development. Almost all services—civil and military—recruit their personnel through open competition at the initial stage, but this is not so for the educational services. The outcome is for all to see. If equal prospects are offered to the proposed IES as to the IAS, there is no doubt that a sizeable segment of the best products of the universities shall opt for the educational services. The national advantage emanating therefrom can well be imagined. These recruits will bring to their task a high degree of vision, initiative, resourcefulness and sense of achievement and shall in turn transmit these qualities to the wards under their charge. Besides, they shall have national outlook and a global over-view, much to be desired in the dynamics of our times. Having selected the best available talent, it should be

ensured that it is filtered through a stiff probationary course. This opportunity should be taken to do further screening, and only the tested ones should be admitted to the IES. During the course of the service too, the teachers should be exposed to short term in-service and refresher courses so as to determine their suitability for promotion and higher responsibility.

Ideal Teacher and Work Ethos

According to the Brahmacharya Sukra of the Atharva Veda, a teacher represents the God of Death. He unfolds before the pupil the secrets of life and death and instils fearlessness in him; he is like water and as such he washes his sins; as moon he teaches him calmness; as medicines he cures him and protects him from diseases; as milk he strengthens him; rules of life are his followers and these bestow liberation. Truth, *Brahmacharya* (self-control) and *tapas* (rigorous practices) govern his conduct. He should not only be learned, but also of exemplary character. Then alone he can claim to be a *guru*, one who shines.

A tall order indeed, but the making of man and a nation through the development of human resource is an Herculean task, and the input must match the challenge.

Production of Ideas and pursuit of excellence is the primary responsibility of a university. This implies work ethos, which is sadly lacking in the present milieu. Hardly does a university work for 100 days in a calendar year. Time has come when teaching should be declared an essential service and the rule of 'No work, No pay' should be strictly enforced. And come to think of it, why have summer holidays, which are certainly an anachronistic legacy of colonial days? These vacations could profitably be utilized for adventure courses, rural service and service of the handicapped and disadvantaged classes.

Associated with this is the question of Brain Drain. It costs the national exchequer a tidy sum to produce a medical or an engineering graduate. Is it not the duty of these graduates to join in the nation-building movement? The concept of *Deva rin*, *Rishi rin* and *Pitri rin* is an ancient Indian concept. It symbolises debt to the gods that is natural elements, to the teachers and to the family and the motherland. Before a trained graduate is allowed to go abroad in search of greener pastures, he should be called upon to do at least 5 years of national

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Vishwavidyalaya, Haridwar

service. This is the call of the hour. In doing so, he shall have strengthened the faculty of teaching, enlightenment and extension education, and thus rendered much needed service to the nation in its forward march.

Here, we may briefly touch upon the question of Capitation fees. The pertinent question is why should higher education be subsidised in the back-drop of paucity of resources so urgently required for elementary and secondary education? Why should not those who can afford pay for it? The talented ones could certainly be subsidized on the basis of merit-cum-means from the state exchequer, but certainly there is no justification for the richer classes to ask for any share from the scanty bowl.

In fact, Industry should also come forward in a bigger way to support technical institutions and the financial policy should be so devised as to encourage channelization of industrial and commercial resources into teaching and research for development.

Reformative Programmes

Next arises the question of the duration of the Degree course. It is now generally accepted that the School term should be 12 years. But the debate still continues about the term of the Degree course. While some States have switched over to the 3 Year Degree course, others are still hesitating to take the plunge, owing mainly to lack of financial resources. Some academicians and parents are genuinely sceptical about the utility of the 3 year course. However, a compromise has been suggested in adopting the 2 year course as the Pass course and 3 year course as the Honours course, which should enable the educand to seek admission to postgraduate studies. This should reconcile the demands of excellence, on the one hand and hunger for Degrees on the other.

This brings us to the question of delinking of degrees from jobs. Although this question has been debated in the University fora, ad nauseam, the ball actually lies in the court of the employers. In fact, many employers hold their own tests for recruitment. It is for them to determine the qualifications of the various cadres under them and to decide whether a Degree is required for a particular job or not. To the extent the qualification of a Degree is dispensed with, it would relieve pressure on the universities. Of course, it calls for home work on the part of the public service commission and the heads of government departments to do this exercise for as it is government jobs still continue to attract a majority of job seekers who in the present value system find it possible to earn disproportionate benefits without doing equal work under the government umbrella.

Examination reform is another knotty problem which has baffled academia for several years. While it is acknowledged that examination is the culmination point and a part of the process of teaching, for reasons of inertia, lack of courage to act and the pressures of vested interests, no headway has been made in this essential reformative programme. There is no reason why selected colleges should not be clothed with the dignity and authority of autonomous colleges, without any further dilly dally. There is no justification whatsoever to load the universities with the task of certifying the students of affiliated colleges any longer, now that employers choose to hold their own tests for recruitment. Apparently, academic will is lacking. It is for all to see how much value erosion takes place under the present examination system, which has outlived its utility, not to speak of loss of man hours and scarce financial resources. In fact, the appendage of affiliated colleges is again an anachronistic legacy of the colonial system of education. It is a mile-stone round the neck of a university.

Curricular reform is closely related to Examination reform. Present curricula suffer from gross rigidity. The need of the hour is to make them flexible. The choice of the students to select subjects of study under the present dispensation is extremely limited. Considering constraints of finance and teaching manpower, facilities should be made available in different colleges/universities for students to pursue different subjects and disciplines, so that it is possible for them to choose disciplines and colleges of their inclination and aptitude. The courses too should be split into short manageable credits, and successful completion of a prescribed number of credits should entitle a student to the degree, whatever be the range of disciplines or subjects offered by him. Thus, a student might combine mathematics with music, mechanics, mountaineering, mineralogy, or any other discipline of his choice available to him and secure a degree. He may drop a subject, if he finds, he cannot cope with it or pursue it for any other reason. The decision shall be entirely his and shall carry no stigma of failure. He might as well pursue the course at a later stage if he finds it convenient. This will depend on his will to learn and gain proficiency in concerned discipline and shall in a sense conform to ancient system of schooling based on the *guru-shishya parampara*, very much like the way our master musicians have followed in their early days even in recent times.

But all this can be achieved only on the shoulders of good, committed and innovative teachers. We must identify them or produce them in sufficient numbers. We must. □

Student Participation in Higher Educational Administration

Srinivasa Narayanaswami*

Youth is defined by the United Nations as persons of 15 to 24 years of age. 1985 was designated by the United Nations General Assembly as International youth year—a year in which the world focussed on the problems and aspirations of youth and sought to provide them with greater opportunities for participating in the development process. The themes of the year were Participation, Development and Peace.

Youth are the growth points of a society. The observance of International Youth Year bears testimony to the importance of the youth in society. The progress of a society depends largely on the utilisation of its youth potential. Dynamic societies rely mostly on the co-operation of their youth for progress. In developing societies youth have a major role to play in transforming their society.

The traditional society managed to control and direct the socialisation of its youth into a pattern of tradition and stability which ensured survival and cultural continuity, even within a framework of moderate change. The major socialising agency was the extended family group, and the availability of choice as regards life style and economic role, was relatively restricted and youth were not expected to challenge the established order.

But today youth are becoming a sub-cultural group with their own ideas, values, norms and attitudes. They seek a new place in a new kind of world. They are living in a world which is in many ways alien and unfamiliar to the older generation. One of the characteristics of present youth is its self-conscious recognition of being a separate social grouping. The youth of today present a picture of "angry youngman" to elders and others. There is growing sense of despair and restlessness among the youth, especially the educated, and waves of indisciplined behaviour and outbursts have become a common feature all over the world. Present day youth is in ferment. Their dissatisfaction with this world is often expressed as "demand" for rights, for power, for privileges and for self examination.

In India it is generally believed that its youth have not risen as vanguards of the forces of social reform and change, except their role in national independence.

They seem to operate within the perspective of neither a stable society nor of cataclysmic revolutionary change of the socio-economic order. Since the dawn of independence, there has been a shift away from the time honoured traditional image of Indian Youth. The youth of India today are radically different from those of yester years. About 17%, or nearly 20 million people in India comprise youth. And this youth is a basic investment for the coming future that will shape the society of India of tomorrow. Among the youth, the educated have come to the forefront and spearhead various movements and are expected to be the future leaders. It is but natural to expect dynamism and foresight among the educated youth who are bestowed with new ideas, values and attitudes by virtue of modern education they have received.

A New Education Policy is on the anvil. It is in this context that the question of the participation of students in the administration of a University/College both in academic and non-academic matters assumes importance.

An educational institution whether it be a university, a college or a school can be considered to be an equilateral triangle comprised of the teachers, the students and the administrators at its three sides. These three components constitute a unity of function. Each of these constituents has its own functions and at the same time duties and obligations to the other two. Only if all these three functions carry out their respective duties responsibly and intelligently the institution can survive and even grow, since the weakening of any one of the three will weaken and may destroy the educational triangle.

A University/College is a Corporate complex when there is no party in 'power' and no party in 'opposition'. It is from this vantage point that the question of student participation must be conceived and considered.

In June 1969, the UGC appointed two committees to consider the issues relating to governance of universities and colleges respectively. The committee constituted under the chairmanship of Dr. P.B. Gajendragadkar the then Vice-Chancellor of the University of Bombay was concerned with the governance of universities while the committee constituted under the chairmanship of Rev. P.T. Chandi, the then

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Vice-Chancellor of Gorakhpur University confined itself to a study of the governance of Colleges. The terms of reference of the two committees consisted inter-alia, the student participation in educational governance at the appropriate level.

On 21st February, 1969, Mr. Madhu Limaye, a Member of Parliament, introduced Bill No. 11 of 1969 "to constitute students unions and to provide for their representation in Central Universities bodies". After the bill was introduced, it was circulated to ascertain public opinion. Mr. Limaye had also introduced another Bill No. VIII of 1969 called "The UGC Amendment Act 1969" for inserting a new section in the Act (Section 12-A) intended to make it compulsory for all universities to set up university students' unions and similar unions in colleges, and to make the setting-up of joint teacher-student committees at the university and college levels mandatory.

On 28th August, 1969, the then Union Education Minister while suggesting the adoption of interim measures for the governance of Banarus Hindu University, made a statement on the floor of the House in which he dealt with the problem of indiscipline and unrest among students, witnessed on several University campuses, and stated, "The time has come for a comprehensive survey of what is called, the governance of Universities for which a committee has been appointed by the UGC". "This Committee", the Minister said, "is also going to look into the subject of student participation".

The Education Commission (1964-66) attached greater importance to student participation and observed: "Student unions represent an important way of providing student participation in university life outside the classroom. Properly organised, they help in self-government and self-discipline, provide a healthy outlet for student energies and give the students useful training in the use of democratic methods.

It is for each University to decide how its students union will function and would welcome a good deal of experimentation."

A number of committees and commissions have deliberated about student participation in educational administration at various educational levels. While the need for experimenting with this new concept has been recognised, and widely discussed, little has been done so far to implement it.

Student participation is not a static concept. It is an evolving concept and is intimately related to the progress of universities, improvement of academic standards etc. It is an academic concept too, and is

based on the assumption that the process of learning in a university/college is a joint adventure or quest of the teachers and students, a partnership in the acquisition of knowledge, and as such, it is not a unilateral process in which the teachers teach or instruct and the students learn or receive knowledge.

Considered purely as an academic concept, the participation of students in the academic life of the university involves a continuous dialogue between the teachers and the taught. It is a serious inadequacy in our university system today that in respect of matters pertaining to education or instruction, the system does not seem to provide a channel of communication, either formal or informal, between the teachers and the students. Absence of such communication creates a feeling in the minds of the students that they do not have any share in the management of the affairs of the university. They do not therefore, develop a sense of belonging to it, which is very essential for the working of the university.

The process of learning and the training of the student's mind, atleast in the higher education level, involves his active participation, rather than passive assimilation. As such, his participation should be sought in matters relating to the organisation of learning and in academic administration. Such participation would create among the students a greater sense of responsibility, help in developing their personality, enable teachers to benefit from the fresh ideas of the youth and also serve to make the higher education responsive to the urges and challenges of the society.

Throughout the world young people, specially university students, are feeling restive. The unrest in Indian Universities is a part of this world-wide phenomenon, although in many important respects the nature of this unrest differs from that in the western, particularly affluent countries. In our country the origin of the present day unrest is to be found partly in the social and political factors outside the academic system and partly in the situation prevailing within the universities and colleges.

Broadly speaking, the student movement acquires political overtones when it is motivated by a dissatisfaction with the established order. Occasionally it leads to a desire to destroy the existing social order and to create a new one in its place. This dissatisfaction with the entire establishment is negative and nihilistic in character. It seeks to destroy without determining what new social order has to be constructed and how.

The dissatisfaction of the students with the society in general and with the existing academic opportunities in particular can easily be exploited by interested faction

leaders within the academic community as well as those without, and this leads to the eruption of agitations based on regional, linguistic or communal demands.

Unfortunately, there is a section of society which has, it seems, come to believe, that no grievance, however justified or legitimate receives proper consideration or redress unless it is enforced by aggressive posture, militant agitation or even violence. The students being the most impressionable segment of the community, quite frequently adopt this view. Consequently, the resentment and frustration of students occasionally leads to violence and destruction of property. This is another aspect of the matter which we cannot ignore.

Sometimes, a disturbing feature of student agitations witnessed on some university campuses have been demands, which could not conceivably be regarded as academically desirable or sound and which if conceded, would irrevocably jeopardise the educational standards. Demands such as those for lowering the percentage of pass marks or cancellation of question papers on the ground that some of the questions were "unexpected". But this is only a passing phase. The approach to the question of student participation in university administration is based on the assumption that the students desire such participation with the object of making education received by them richer, deeper, more meaningful, and significant; in other words the students' desire for participation rests on academic and not political considerations.

While these general factors are extremely important, it cannot be disputed that in most universities and colleges there is no machinery for continuous exchange of ideas between the students and teachers and between students, teachers and the authorities. As a result dissatisfaction unnecessarily mounts up where the cause of irritation can be easily removed and misunderstanding persists though in some cases the removal of alleged grievances is beyond the competence of the academic authorities. This is specially so in cases where the causes of student unrest lie outside the campus. In addition to a constant dialogue between teachers and students in respect of all aspects of university college activities, and institutional machinery for consideration of student opinion and ensuring student participation should be established in each university and college.

While considering the question of student participation in the administration of universities and colleges, the following aspects deserve careful examination:

(a) What should be the level of participation? Should it be advisory and consultative or decisive? Should students be full members of the authorities of the University/College?

(b) On what aspects of administration should there be participation at the various levels mentioned at (a) above?

(c) What should be the nature of student representation (faculty-wise, college-wise, nominated or elected, role of Student Union etc.)

Students should have the opportunity to play a leading role in the organization of corporate life and extra-curricular and co-curricular activities. The teacher may guide and advise them in such matters, but the decision making should, as far as possible be the responsibility of students. The head of the institution should have in all such cases, emergency powers to over-ride the decision of the students, but obviously these powers should be exercised, if at all only for compelling reasons, and the action should later be reported to the appropriate university bodies.

The students should also be encouraged to give thought to important academic questions like the structure of courses, the content of syllabi, pattern of instruction and examination. Through a suitable consultative machinery, they should also be made aware of the broad administrative problems facing the university including its budget and finances, by giving them representation in the statutory bodies. If the students are given the opportunity to discuss with their teachers these important academic and administrative matters, they would understand and appreciate better how a university functions. It is in the interest of the universities as well as of the nation that tomorrow's leaders should adequately understand the problems of the management of universities and colleges.

The statutes of each university college should provide for the establishment of a Student council. The functions of this council may be as follows:

(i) to make recommendations to the Senate/Syndicate/Academic Council in matters affecting the academic work of the students such as the structure of courses, pattern of instruction, examination etc.; the corporate life of the university college in so far as it concerns the students and the co-curricular and extra-curricular activities in the universities and colleges.

(ii) all rules affecting discipline, welfare, sports, literary and departmental societies, management of hostels, student homes, non-resident student centres, extension work, social work, student health, NCC, NSS etc., shall be placed before the Student Council for obtaining its views, which will then be communicated to the appropriate decision-making bodies, and

iii) the Council shall have the right to communicate its views, observations and recommendations to the Vice-Chancellors or any authority of the University/College in respect of any matter which concerns the students.

While discussing "student participation" there is no justification for any "opposition complex" against the establishment of University/College either in relation to its administrative wing or in relation to its faculties. To quote Caleb Forte, "Any mechanical analogy of a university or college with its very specialised and unique functions to a "democratic society" is inapposite, yet such attributes of the democratic spirit as freedom of speech and inquiry, respect of personal autonomy, and the pre-eminence of the appeal to reason are the essence of a genuine educational climate"

The concept of participation of students is to help make university college education richer and more meaningful. The contribution of students in determining the shape and pattern of the academic life of a university college can be very substantial. When students desire to participate in the academic life of the university college, and to be intensively involved in their educational process, when they want to be partners in the pursuit of knowledge, and co-sharers

in the experience of acquisition of knowledge and want to develop a sense of belonging to the university/college both in regard to its academic and non-academic affairs, it is absolutely desirable and necessary to promote and strengthen student participation in the administrative and academic affairs of universities and colleges.

"Student participation" is a new concept and involves a radical departure in the traditional philosophy of university college governance. It is necessary to accept the relevance and validity of this departure, not so much because students are claiming participation in educational administration, but because, considered purely as an academic proposition, legitimate participation of serious-minded students in academic matters of the faculties with which they are concerned would help to make the functioning of the faculties more meaningful, fruitful and significant. Students and teachers should be regarded as junior and senior members respectively of a university college, sharing common goals and ideals. This concept does not purport to exclude advice, and even guidance or direction in a suitable form, regarding the administration of the university college when circumstances require it, by an "authority outside the statutory bodies". A suitable machinery for such supervision could be provided at the Vice-Chancellor/Chancellor's level.

CALENDAR OF EVENTS

Proposed Dates of the Event	Title	Objective	Name of the Organising Department	Name of the Organising Secretary/Officer to be contacted
February 16-20, 1986	Tenth International Congress of the Federation Internationale de la Precontrainte (FIP)	To provide a forum for exchanging ideas and discussing new and innovative practices in structural concrete across the world	The Institution of Engineers (India), Bahadur Shah Zafar Marg, New Delhi	The Organising Secretary, FIP 86, C/o Institution of Engineers (India), Bahadur Shah Zafar Marg, New Delhi
February 20-22, 1986	Second Cuban Seminar on Interferon and First Seminar on Biotechnology	To promote fruitful exchange of experiences on these subjects	Iberian-Latin-American Society for Interferon and the Cuban Committee on Biotechnology	The President, Organising Committee, Seminario Interferon Biotecnologia, P. O. Box 6072, Havana, Cuba
February 24-28, 1986	Short-Term course on Application of Remote Sensing to Mineral Exploration	To acquaint the participants with the techniques of Image Processing and Digital Analysis of Landsat Data.	Centre of Studies in Resources Engineering, IIT, Bombay	Dr. T.V. Pavate, Chief Project Engineer, Remote Sensing Division, CSRE, IIT, Bombay
February 24-28, 1986	International Symposium on the Role of Universities in Wildlife Education and Research	To recommend the start of Life Science Teaching and Research on modern scientific lines in the Indian Universities	Department of Zoology, Aligarh Muslim University, Aligarh	Dr. A. H. Musavi, Director

NATIONAL GEOPHYSICAL RESEARCH INSTITUTE

(Council of Scientific & Industrial Research)

HYDERABAD-500 007

NGRI ADVERTISEMENT NO. 1-86

Applications in the prescribed form are invited for the award of :

1. Two Junior Research Fellowships of NGRI;
2. Two Junior Research Fellowships of the Department of Ocean Development tenable at NGRI; and
3. One Research Associateship of the Department of Ocean Development tenable at NGRI.

The Junior Research Fellowship of NGRI carries a stipend of Rs. 800/- per month. The Junior Research Fellowship of the Department of Ocean Development carries a stipend of Rs. 1000/- per month. The tenure of JRF is for 2 years.

The Research Associateship of the Department of Ocean Development carries a stipend that ranges between Rs. 1400/- and Rs. 2000/- per month. The Associateship is for a period of two years in the first instance and further extension will be considered on the basis of performance and merit upto a maximum period of 5 years.

Qualifications for J.R.Fs (both for NGRI as well as D.O.D. Fellowships) :

Consistently good academic record with a first Class Master's Degree in Geophysics/Physics/Mathematics and first class Bachelor's Degree with Physics and Mathematics.

Qualifications for Research Associateship

Consistently good academic record with first class Master's Degree and Ph.D. Degree in Geology/Geophysics having ability to undertake quantitative analysis of geological data, specially marine geological data.

Only one application for Junior Research Fellowship may be sent which will be considered for all the Fellowships available for NGRI & DOD.

Eligible candidates will be required to appear for written test followed by an oral test at NGRI Hyderabad.

Upper age limit for Junior Research Fellows & Research Associateships :

25 years and 35 years respectively as on 1-4-1986. Relaxation in age limit upto 3 years will be considered in the case of applicants who are suitably qualified and have research/training/teaching experience. The upper age limit is relaxable upto 5 years in case of candidates belonging to SC and ST communities.

Application forms along with rules governing the selection and award of Fellowships can be obtained from the Administrative Officer (SG), National Geophysical Research Institute, Uppal Road, Hyderabad-500 007 by sending a self-addressed stamped (worth Rs. 0.70 paise) envelope of 23 x 10 cm. size on or before 14-2-1986. The completed applications (supported by attested copies of all the certificates and testimonials) along with non-refundable fee of Rs. 8/- (Rs. 2/- for SC & ST candidates) in the form of crossed Indian Postal Order drawn in favour of the Director, National Geophysical Research Institute, Uppal Road, Hyderabad-500 007 should be sent, so as to reach him on or before 5-3-1986. Applications received after this date will not be entertained.

C. Shankar
ADMINISTRATIVE OFFICER (SG)

INDIAN STATISTICAL INSTITUTE

ADMISSION NOTICE 1

Session : 1986-87

Applications are invited for the following courses fellowships for which duration, values of monthly stipend/fellowship and eligibility conditions are briefly described below. Further details and other conditions are available in the prospectus. Selection of candidates is based on academic record, written tests and interviews.

i.1 Bachelor of Statistics (Hons.) : *Duration :* 3 years; *Stipend :* Rs. 100; *Eligibility :* Successful completion of 10+2 years of secondary education (or equivalent thereof) with Mathematics and English.

1.2 Master of Statistics : *Duration :* 2 years; *Stipend :* Rs. 125; *Eligibility :* 3-year Bachelor's Degree with Statistics and Mathematics as full subjects or equivalent qualification, obtained after twelve years of secondary education. Those without Statistics, but having outstanding mathematical ability, may also be considered. Holders of Statistician's Diploma Senior Diploma of ISI are eligible for admission to the second year of the course.

The National Board of Higher Mathematics offers one scholarship of value Rs. 400 per month, for an outstanding First year student of the Master of Statistics course of the Institute, for two years.

1.3 Master of Technology in Computer Science : *Duration :* 2 years; *Stipend :* Rs. 1000; *Eligibility :* Master's Degree in a relevant subject or Bachelor's degree in Engineering Technology or equivalent qualification and knowledge of relevant topics of Physics Mathematics.

1.4 Research Courses leading to Registration for the Ph.D. Degree : *Fellowship :* Rs. 1000; *Eligibility :* A good Master's degree in Mathematics Statistics, or Mathematical Economics; or exceptionally outstanding mathematical maturity with B.A. B.Sc. Degree with Mathematics, Statistics or Economics as a main subject.

1.5 Post-Graduate Diploma Course in Statistical Quality Control and Operations Research : *Duration :* 15 months; *Stipend :* Rs. 1000; *Eligibility :* Bachelor's Degree in Engineering/Technology or Master's degree with Statistics or Mathematics up to graduate level or recognised research/other work in Statistics.

2. Junior Research Fellowships : *Fellowship :* Rs. 1000. Research areas and eligibility conditions are given below.

Group A : Research in several areas of Computer Science which include Analysis of Algorithms, Artificial Intelligence, Computer Communication Net-Work, Digital Communication, Fault Tolerance, Image Analysis, Parallel Algorithms, Pattern Recognition, Testable Design, VLSI Architecture. *Eligibility :* (i) M.Sc. or equivalent degree in Physics Mathematics Statistics or (ii) B.E. or equivalent degree or M.T. or equivalent degree in Electronics Computer Science Electrical Engineering.

Group B : Dynamical Meteorology, Hydrodynamic Stability, Statistical Theory of Turbulence, Viscous Flow. *Eligibility :* (i) M.Sc. or equivalent degree in Physics Mathematics Statistics or (ii) B.E. or equivalent degree in Mechanical Engineering.

Group C : Foundation of Quantum Mechanics, Nuclear and Particle Physics, Super-symmetry, Cosmic Ray Physics and Astrophysical Plasma. *Eligibility :* (i) M.Sc. or equivalent degree in Physics Mathematics Statistics preferably with Physics or Mathematics at the graduate level.

Group D : Chemistry. *Eligibility :* First or high second class Master's Degree in Chemistry with specialization in Physical Chemistry, or Agricultural Chemistry or Soil Science.

Group E : Biomedical Engineering/Medical Physics. *Eligibility :* M.Sc. in Physics with Biophysics/Medical Physics or in Physiology with Biophysics.

Group F : Biometry. *Eligibility :* A good Master's Degree in Biochemistry or Physiology preferably with some experience in doing immunological work related to catabolic diseases.

All courses/fellowships are offered in Calcutta. In addition, courses **1.2** and **1.4** are offered in Delhi and course **1.4** in Bangalore. The course **1.2** may also be offered in Bangalore.

Besides stipend/fellowship there is also a suitable annual book allowance. Hostel facilities are available. *Candidates who have completed or are due to complete the qualifying examinations before 1 July 1986 may also apply.* This may be relaxed by the Institute in case of candidates with outstanding academic record and performance in the selection tests and interviews. Selection tests for the courses/fellowships will be conducted at a number of centres. Candidates should satisfy themselves that they are eligible for admission to the course or for the award of the fellowship for which they apply. If at any stage it is found that a candidate does not satisfy the eligibility conditions or the information furnished in the application is incorrect, the application will be cancelled. Prospectus and application form can be obtained from the **Dean of Studies, Indian Statistical Institute, 203 Barrackpore Trunk Road, Calcutta 700 035**, by paying an amount of Rs. 10 - by cash (between 10.30 a.m. and 2.00 p.m. on working days between Monday to Friday) or by crossed postal order/bank draft payable at Calcutta in favour of **'Indian Statistical Institute'**. Postal orders must contain the name and address (in block letters) of the sender. Money orders and cheques will not be accepted.

Last date for receiving requests for application form : **17 March 1986**

Last date for receiving completed application form : **31 March 1986**

Date of selection tests : **SUNDAY, 18 May 1986**

Tentative dates of interviews : **23 June—4 July 1986**

INDIAN INSTITUTE OF PETROLEUM

P. O. IIP, MOHKAMPUR, DEHRADUN

Advertisement No. 186.

Applications are invited for two posts of Junior Research Fellow in Indian Institute of Petroleum, Dehradun under the Project 'Studies on Flow Behaviour of Waxy Crude Oils & Petroleum Products' sponsored by Oil Industry Development Board.

- Emoluments** : Rs. 800 - non fixed plus House Rent allowance as per rules if accommodation is not provided.
- Tenure** : One year.
- Age** : Below 25 years.
- Qualification** : M.Sc. 1st Class in Physical or Organic Chemistry with Physics, Chemistry and Maths at B.Sc. level.

The candidate recruited as J.R.F. on the above sponsored Project will not be eligible for registration for Ph.D. Degree.

Applications on plain paper giving complete bio-data (i.e. Name, Date of birth, Father's name, Present and Permanent Addresses, Educational Qualifications from High School onwards) and supported by copies of Marks Sheets and certificates etc. should reach the Director, Indian Institute of Petroleum, P.O. IIP Mohkampur, Dehradun- 248005 latest by 28.2.1986. Incomplete applications will not be entertained.

Central Institute of English and Foreign Languages

HYDERABAD-500 007

ADVERTISEMENT NO. 1, 1986

The CIEFL announces the following courses for the academic year 1986-87:

A. ENGLISH

Beginning 1st July 1986

1. Post Graduate Diploma in the Teaching of English/English Studies
(2 Semesters : July 1986 to March 1987)
Entrance qualification : Good M.A. in English or an allied subject—Linguistics, Education, Mass Communication and Psychology.
2. A (Post-M.A.) 2 Semester M.Litt. (Residence requirement : 12 months—July to June)
3. Ph.D. (6 Semesters—3 years)
Areas of Research: (1) English Literature, (2) English Linguistics and Phonetics (3) English Language Teaching.

B. FOREIGN LANGUAGES

Beginning 1st June 1986

M.A. (Correspondence-cum-Attendance) in French German Russian (3 years with 8 weeks attendance at the Institute every year during June and July).

Beginning 1st July 1986

1. Postgraduate Certificate in the Teaching of German (1 Semester)
2. Postgraduate Diploma (post M.A.) in the Teaching of Modern Arabic French German Russian
(2 Semesters : July to March)
3. M.Litt. in Modern Arabic French German Russian (3 Semesters)
4. Ph.D. in Modern Arabic French German Russian (6 Semesters—3 years)
5. Advanced Diploma in Translation in French (2 Semesters)

Reservation for Scheduled Castes and Scheduled Tribes candidates according to Government of India rules.

Stipends/Fellowships/Scholarships available:

- (1) Stipends worth Rs. 600/- p.m. are offered to teachers sponsored by their Institutions.
- (2) A few Merit Scholarships worth Rs. 600/- p.m. will be awarded on the basis of a test to those who are not in service.
- (3) UGC/CIEFL Teacher Fellowships Rs. 500/- p.m.
- (4) UGC Junior Research Fellowships Rs. 1000 - p.m.
(on the basis of a national test).
- (5) CIEFL Junior Research Fellowships Rs. 800/- p.m.
(Item Nos. 1 and 2 for Diploma Courses ; Items No. 3 to 5 for M.Litt. and Ph.D. courses.)

For application form for admission/Fellowships and prospectus, please write to the Editor, CIEFL, Hyderabad-500 007, with a crossed postal order for Rs. 6/- drawn in favour of the Registrar, CIEFL, Hyderabad-500 007.

Last date for receipt of filled in applications for courses in English is 20th March, 1986.

Last date for receipt of filled in applications for Courses in French, German and Russian is 31-3-1986 and for Arabic Courses 30-4-1986.

**K. Jayashankar
REGISTRAR**

DEPARTMENT OF BUSINESS ADMINISTRATION
THE UNIVERSITY OF BURDWAN
BURDWAN, WEST BENGAL
OFFICE OF THE SECRETARY, FACULTY COUNCILS

ADMISSION NOTICE

Applications are invited for admission into the 2-Year full-time Post-Graduate Programme in Business Administration leading to the M.B.A. degree of the University of Burdwan, for the session 1986-88. The Programme is approved by the UGC on the recommendations of the All-India Board of Management Studies of the Ministry of Education, Government of India.

Eligibility

Candidates satisfying any of the undernoted qualifications will be eligible to apply for admission :

(a) A graduate with Honours in Arts, Science, Commerce or any other Branch of social sciences with at least 50% marks in the aggregate for the Honours papers

Or

(b) A graduate in Engineering and Technology Pharmacy, Agriculture with at least 60% marks in the aggregate.

5% concession of marks may be allowed to candidates with minimum qualifications as prescribed in (a) or (b) above and holding a responsible position in a corporate organisation not below the rank of Junior Executive for a period of not less than two years, who are sponsored by the employer.

In case of Scheduled Caste and Scheduled Tribe candidates an overall concession of 5% marks will be given.

Criteria of Selection

Selection will be based on past academic records, performance in the written admission test, group discussions and interview.

Admission Test will normally be held at Burdwan. However, if sufficient number of applications are received, the admission test may be arranged in different regional centres, namely, Calcutta/Delhi/Hyderabad/Madras/Bombay/Pune. Candidates found eligible on primary scrutiny will be informed accordingly.

Commencement of Course

The first semester of the course is likely to start from July 1986.

To get application form and other particulars please write to the Secretary, Faculty Councils, Burdwan University, Rajbati, Burdwan, West Bengal with a self-addressed stamped (70 Paise) envelope (10" x 5") and attested copy of marks-sheet and Degree of Final Examination within 5.3.86, or may collect personally from the office of the Secretary, Faculty Councils, Burdwan University, Rajbati, Burdwan, on production of marks-sheet in original or attested copy of Degree Examination on or before 31.3.86.

Last date of receiving applications in the prescribed form is 31.3.86.

Secretary
Faculty Councils

Seminar on New Education Policy

A one-day seminar on New Education Policy was held at the Annamalai University to consider the document 'Challenge of Education : a policy perspective' issued by the Government of India. The seminar, inaugurated by the Vice Chancellor, Prof. S.V. Chittibabu, was attended by over 150 teachers, research scholars and students. Prof. Chittibabu in his inaugural address touched upon the salient points in the document and observed that it was not the first time that shortfalls had been pointed out in the education system. Kothari Commission had also figured out our failures and submitted proposals for restructuring of the education system. Lack of political will was responsible for non-implementation of the Kothari Commission report and other reports submitted earlier. Our education was still urban oriented and elitist in character and neglected the needs of the rural population, he said, and suggested that the participants should address themselves to specific areas like N.S.S., non-formal and extension education programmes, problem oriented and socially relevant research, and inter-departmental and inter-disciplinary cooperation in the university departments.

The seminar was conducted in the four sessions devoted to (i) New Directions for Contents of Higher Education; (ii) Strategies for Overhauling the Teaching Methods and Examination System; (iii) Towards a New Management System for Autonomy, Accountability and Efficiency; and (iv) Distance Education, Life Long Education and Learning Society.

A number of issues were raised by the participants in each of these sessions. What follows are highlights

of the deliberations of each of these sessions.

(i) New Directions for Contents for Higher Education

Need for value oriented education that should promote productivity was stressed and an overhaul of the present curriculum was recommended to promote this change. A common curriculum for the whole country devised on the modular pattern of education giving wide choice of subjects to students was supported by the participants. It was suggested that higher education available to only such students as had necessary scholastic aptitude and motivation. It was observed that mother tongue was the best media for technological growth. Problems of poverty, unemployment and illiteracy were due to the failures on the educational front and were seen as the factors responsible for the erosion of moral values in public life.

(ii) Need and Strategies for Overhauling the Teaching Methods of Examination System

The semester system was thought to have brought in examination much too often. Annual pattern coupled with continuous assessment was therefore favoured. It was observed that emphasis should shift from examinations to acquisition of knowledge. The need for training of the teacher probationers at least for those teaching at the undergraduate level was stressed and it was suggested that such training could even be made

compulsory on the same pattern as it was for IAS probationers. Facilities should also be extended to teachers to take part in short orientation programmes and get retraining in staff development centres.

While a number of participants favoured delinking of degrees from jobs, it was attributed to lack of co-ordination or management that we were faced with a situation where on the one hand we lacked trained manpower and educated unemployed on the other. It was also observed that delinking of degrees from jobs might be indicative of the fear of the uninformed that this was a clever strategy to deprive the young of the benefit of higher education based on the fear of the unemployment with higher education turning radicals. The answer, however, lay in making degrees meaningful and motivating graduates to become self employed and to think in terms of creative jobs.

(iii) Towards a New Management System for Autonomy, Accountability and Efficiency

Participants were emphatic that the teachers could not escape the blame if the college graduate was weak in analysis and spirit of enquiry and was unable to communicate in his/her own or any other language clearly and effectively, and with it all, was ethically unsure and ignorant of his/her history and culture. Courses should be so restructured that education is geared to meet the emerging needs of tomorrow. Corrective action must be taken to undo the neglect of rural population in the matter of provision of educational facilities. The

constitutional obligation of free and compulsory education for all children upto the age of 14 should be implemented by strict enforcement of existing provisions in law. For instance, it was suggested that strict enforcement of the abolition of child labour will leave parents with no other option than sending their children to school. Educational motivation camps should be organised to impart an awareness of the value of education. The participants commended the concept of autonomous colleges and pleaded for establishment of centres of excellence at all levels, secondary schools, colleges and universities that will serve as pace-setter model institutions.

It is important that youngmen of merit are identified for the proposed centres of excellence, given best possible education, and put in proper work environment. But they must be made to pay the entire expenditure on their education if they were to leave this country.

Increased financial allocation was sought for education, laying emphasis at the same time on the accountability of teachers. They should be held accountable like those in other services for the commitment to work and tasks entrusted to them. This was however, linked with the recruitment of right type of teachers and creation of proper environment where they can work in peace and without pressures. Incentives must be given to attract the right kind of men to the teaching profession and merit alone should count for promotion.

Student representation to university bodies was not favoured though it was argued that their interests be safeguarded by adequate representation to the alumni of the

universities. It was felt that the Directors of collegiate education, technical education, medical education and agricultural education and the Secretaries of education and finance of the State Governments should be ex-officio members of the syndicate and the senate. Their presence will help monitor academic progress and ensure proper utilisation of funds.

A forceful plea was made for applied research and it was suggested that research banks be set up to provide problems, receive solutions and take on the task of the dissemination. Teachers should be motivated to undertake research. They should be provided adequate facilities like study leave with salary for higher education or research in advanced centres of learning.

Greater emphasis should be laid on inter-university cooperation within a state. Dates of closing and reopening of the universities and publication of results should be synchronised to avoid delays in admissions to postgraduate and professional courses. Centrally sponsored institutions like CLRI, CFTRI etc., as have sophisticated instruments should make these facilities accessible to universities and make arrangements that could later be extended to cover mutual exchange of teachers and scholars and full utilisation of the facilities.

Educational decision-making is best left to academics than bureaucrats. Arrangements should however be made for the teacher administrators to be initiated to management techniques at institutions like the Indian Institute of Management.

(iv) Distance Education, Life long Education and Learning Society

In a country like India with a high rate of illiteracy and poverty, non-formal education

alone can spread literacy and improve economic condition of the masses. Universities and educational institutions must cater to all the seekers of knowledge and information. These facilities must extend to:

(a) Those who never had formal education; (b) Those who had formal education but could not continue higher education due to financial and other constraints; (c) Those who were drop outs due to disinclination but have developed a liking for further studies at a later time; (d) Those who want to pursue studies for the sake of acquisition of new knowledge or for higher job placement; (e) Housewives whose early education was forcibly stopped but would now wish to acquire a university degree, and (f) Those who have the time to acquire further knowledge, like defence personnel etc.

Continuing and life long education is not only essential for teachers but for all professions. In fact the scope of continuing education should be extended to almost merge with extension education and cover such fields as cooking, tailoring, interior decoration, preparing household gadgets, cosmetic and detergent manufacturer etc. It was emphasised that the national open university and the state open universities should not duplicate the work of existing institutes of correspondence courses. They should cover more challenging fields not covered so far. The object of the National Education Policy as regards life long education and community learning should be to infuse confidence in the minds of people in the rural areas and rid them of their despondency and ignorance and instil in them hope and optimism. It was suggested that population education be included as an important component of the new education policy to promote national planning and ensure higher standards of living. □

CENTRAL LEATHER RESEARCH INSTITUTE

(Council of Scientific and Industrial Research)

ADVERTISEMENT NO. 1/86

The Central Leather Research Institute, one of the National Laboratories of the CSIR, is the largest research centre in the world devoted to leather science and technology. The CLRI strives to deliver to the industry the services of all the contemporary sciences known to influence leather and leather products manufacture. Current activities relate to: processes for improved leather manufacture, new chemical auxiliaries for leather processing and finishing, effluent treatment systems, better utilisation of tannery and slaughter-house wastes and footwear and leather goods research, supported by relevant organic, bio-inorganic and bio-chemistry, microbiology, polymer sciences and leather technology.

New thrust areas will be : Collagen research; chemical engineering inputs to design, optimise and control processes for leather making; microelectronics and computers for creative designing of leather products; biotechnology for enzyme unhairing and effluent management. The Institute already has a number of sophisticated equipments like scanning electron microscope, FT-NMR, Varian T-60, GPC, GLC, spectrofluorimeter, DTA, DSC and TG equipments, high speed centrifuges and particle size analyzer, and will soon be strengthened by a mini-computer, infrared spectrophotometer, HPLC, fast reaction instrumentation facility and CAD packages for leather products design. An expansive modernisation of the pilot tannery and the chemical process multi purpose pilot plant for leather auxiliaries are underway.

CLRI now seeks suitable researchers with high professional goal and proven records of attainments for the following positions. Commitment, creative thinking and team working will be expected of the prospective scientists.

Category I SCIENTIST E1-E11—4 Posts

Rs. 1500-60-1800-100-2000 or

Rs. 1800-100-2000-125 2-2250

Group IV(3)

Group IV(4)

Post 1 (Collagen Research)

Qualifications and Experience : Ph.D. in an area of biochemistry, biophysics, biotechnology, molecular biology or related branch of modern biology with atleast 12 years research experience after M.Sc. The candidate should produce evidence of independent work of a high quality such as outstanding publications academic honours and patents, and should be capable of generating new and original research ideas.

Job Requirements : The selected scientist is expected to perform research as well as lead a research team on collagen and collaborate with researchers of other disciplines in CLRI and outside and promote growth of interdisciplinary programmes relating to collagen.

Post 2 (Chemical Engineering)

Qualifications and Experience : Ph.D. in chemical engineering with a minimum of 10 years of professional or research experience in process development, process design, computer aided design and modelling of chemical process systems. In case of exceptionally competent chemical engineers, M.Tech. degree with minimum of 10 years of professional experience will be acceptable. The scientist must have proven experience of coordinating process development and design engineering activities in a reputed research or professional organisation. Experience in the fields of biotechnology and enzyme engineering will be desirable.

Job Requirements : (a) Introducing a modern chemical engineering orientation to tanning operations will be one of the first tasks; (b) Co-ordinating time targetted inter-disciplinary projects and developing know-how packages with basic design engineering inputs; (c) Modernising, updating and maintaining a multi-purpose chemical process pilot plant; (d) such other initiatives as will help the leather and leather product industries.

Post 3 (Environmental Technology)

Qualifications and Experience : First Class B.E. with 12 years experience or M.Tech/M.E. or Ph.D. with 10 years experience in the field of environmental public health engineering with original work as evidenced by publications and/or patents. Should have proven experience in designing effluent treatment and pollution control systems. Knowledge of international trends, recovery and recycling technologies essential.

Job Requirements : To function as a senior scientist performing and guiding R & D in the environmental technology area including environmental impact assessment of tannery effluents and design engineering treatment systems.

Post 4 (Information)

Qualifications and Experience : First Class Master's Degree in Science with a post-graduate diploma from DRDC/INSDOC or similar recognised institution and 10 years of experience at a senior level in one or more of the following areas : Library/Documentation/Publication/Reprography. Experience or working knowledge of computerised information management methods essential. Proficiency in one or more foreign languages

and a good command of spoken and written English and effective communication abilities will be of value.
Desirable : Ph.D.

Job Requirements : To provide leadership and co-ordinate activities of National Information Centre for Leather and Allied Industries which includes library, documentation services, data bank and auxiliary services like printing, publications and reprography.

Category II : SCIENTIST 'C' - 3 Posts Group IV(2)

Rs. 1100-50-1600

Post 1 : Microbiology

Qualifications and Experience : First Class M.Sc., preferably a Ph.D. Atleast 6 years experience after M.Sc. in the field of microbiology or a related branch of biology. Candidates with a good record of original work evidenced by publications in reputed journals, preferably related to leather processing and preservation preferred. R & D experience in biotechnology desirable.

Job Requirements : To assist senior scientists in the planning and execution of R & D projects on biodegradation and biological treatment of tannery effluents for their disposal/utilisation, and leather preservation.

Post 2 : Co-ordination Chemistry

Qualifications and Experience - First Class M.Sc., preferably a Ph.D. Atleast 6 years research experience after M.Sc. in co-ordination chemistry or a related subject. Experience of research work in bioinorganic/surface/photo chemistry desirable. Candidate with demonstrated experience in directed synthesis of co-ordination compounds, with knowledge of reaction mechanism, spectroscopic techniques will be preferred.

Job Requirements : Required to independently carry out work on application of chromium, aluminium and zirconium compounds for tanning and collaborate in team work in the field of bioinorganic chemistry.

Post 3 : Chemical Engineering

Qualifications and Experience : M. Tech. in Chemical Engineering with minimum of 4 years of professional experience or Ph.D. with minimum of 2 years of research/professional experience in chemical engineering is essential. Demonstrated ability in process development or computer aided design of chemical process equipments is needed. Independent handling of computers based on UNIX and MSDOS operating systems and programs written in several languages including FORTRAN IV will be needed. Knowledge in physical chemistry aspects of process design and lamination technology and proven ability as a Project Leader, will be desirable.

Job Requirements : To assist in the planning and execution of time-targetted interdisciplinary projects on the development of chemical auxiliaries for leather; to handle computer-assisted design activities and carry out other related activities that may be assigned from time to time by senior investigators.

Category III : SCIENTIST 'B' - 7 Posts Group IV (1)

Rs. 700-40-900-EB-40-1000-50-1300

Essential Qualification for posts 1-6: M.Sc. I Class or B.E./B.Tech. I Class in the indicated subject. Desirable : 2-3 years research experience in one or more areas listed against each post.

Post 1 & 2 (Biochemistry) : Experience desirable in proteins, enzymes, biosynthesis and metabolism of collagen or other proteins. Familiarity with techniques used in modern biological research

Post 3 (Inorganic/Physical Chemistry) : Experience in organometallic or metalloprotein chemistry or peptide synthesis. Familiarity with instrumental techniques.

Post 4 (Polymer Chemistry) : Experience desirable in leather finishes, tanning aids, filling agents

Post 5 (Environmental/Public Health/Civil Engineering) : Experience in pollution control problems, treatment of tannery industrial effluents.

Post 6 (Chemical Engineering) : Experience in chemical process development, chemical process plant maintenance.

Job Requirements for posts 1-6 : To provide competent scientific or technical assistance to senior investigators as needed in the execution of research projects of the Institute.

Post 7 (Medical Officer 'B') Group IV (1)

Essential Qualification : First Class M.B.B.S. degree with 2 years experience in a reputed hospital or dispensary as Medical Officer. Desirable : Post graduate degree/diploma.

Job Requirements : To plan, organise, and take charge of the dispensary in the CLRI campus and provide medical and health care facilities to residents and staff in the CLRI campus.

Category IV : TECHNICAL OFFICER 'B' (2 Posts) (Group III (4))

Rs. 700-40-900-EB-40-1100-50-1300

Post 1 : Leather Goods

Qualifications and Experience : Degree in Science with 10 years experience in design and fabrication of leather goods. Good working knowledge of various leather goods machineries will be preferred.

Job Requirements : To develop new designs of leather goods using different types of leathers and non-leather

components; to co-ordinate in standardising production and assist in training programmes in leather goods area.

Post 2 : Electrical

Qualifications and Experience : A first class B.E. or equivalent in electrical engineering is essential. **Desirable :** 2-3 years experience in a responsible position in the fields given under job requirements. Knowledge of Tamil and Hindi.

Job Requirements : Operation and maintenance of 500 KV electrical substation, diesel generator sets, all electrical services, plants etc; planning and execution of new electrical services and systems; co-ordination with other staff engaged in other utilities and services and maintenance activities; and such other related duties as may be assigned from time to time.

Category V : SENIOR TECHNICAL ASSISTANT (2 Posts) Group III(2)

Rs. 550-25-750-EB-30-900

Post 1 :

Qualifications and Experience : Degree in Chemistry with five years research experience or II Class M.Sc./M.Phil. degree in Biochemistry with good academic record and adequate research experience in the field of collagen biochemistry.

Job Requirements : To assist scientists engaged in research projects on collagen.

Post 2 :

Qualifications and Experience : Degree in Chemistry with five years research experience in preparation and analysis of chemicals and auxiliaries such as fatliquors, syntans, vegetable tannins used in leather processing. Master's degree in chemistry with proven research experience in the above field preferable

Job Requirements : To assist scientists in the development of chemical auxiliaries vegetable tannins/syntans.

Category VI : TECHNICAL ASSISTANT—4 Posts Group III (1)

Rs. 425-15-500-EB-15-560-20-700

Post 1 and 2 :

Qualifications and Experience : Essential : Degree in Chemistry-Physics. **Desirable :** 2-3 years experience in (a) dyeing and finishing of different types of leathers analysis and physical testing of leathers OR (b) analysis of industrial effluent/tannery waste. (c) operation of mini-computer

Job Requirements : To assist scientists in (a) dyeing and finishing experiments analysis and testing of leather for evaluation OR (b) chemical analysis of tannery effluents, polluted soil and biological substances. (c) Operating and maintaining a mini computer.

Post 3 :

Qualifications and Experience : B.Sc. degree or a 3-year Diploma in Pharmaceuticals from recognised Govt. institutions with experience as a Registered Pharmacist in a reputed hospital or dispensary. Working knowledge of medical and diagnostic instruments such as ECG will be considered as additional qualifications.

Job Requirements : Required to compound and issue medicines according to prescription; to maintain stock record of medicines, aides and appliances and assist the medical officer in running the dispensary.

Post 4 :

Qualifications and Experience : B.Sc. or an equivalent 3-year Diploma in Nursing issued by a recognised Govt. institution hospital with experience as staff nurse in a reputed hospital or dispensary. Good knowledge of operating and maintaining medical and diagnostic instruments will be desirable.

Job Requirements : To assist the medical officer in the maintenance of dispensary and providing health care facilities in the campus and attend to all nursing needs of out-patients/in-patients in the dispensary.

Category VII : GUEST HOUSE CARE-TAKER—1 post

Rs. 425-15-500-EB-15-560-20-700

Qualifications and Experience : A degree in Home Science OR Diploma in Hotel Management/Catering Technology with 2 years experience in a reputed Hotel or a Govt./Semi-Govt. Guest House.

Job Requirements: To manage the Guest House with professional competence, managerial ability and integrity. Will be responsible for the upkeep and maintenance of the Guest House inclusive of allotment of rooms/guest suits, collection of rent and accounting thereof etc. Also carry out any other related work assigned from time to time. Preference will be given to Ex-Servicemen with competence in the above field. **Desirable:** Knowledge of local language and Hindi. **Age :** Not exceeding 28 years, but relaxable in the case of Scheduled Caste/Scheduled Tribe and Ex-Servicemen, as per rules.

GENERAL CONDITIONS

1. The posts at Category I to IV are contractual for a period of six years (including the period of probation of two years) in the first instance and the other posts are temporary. All posts carry usual allowances as admissible under Central Government Rules. Higher initial start may be considered for deserving candidates. Total

emoluments at the minimum of the grades at present are as follows :

On Rs. 1800/-	—	Rs. 3861.30
On Rs. 1500/-	—	Rs. 3375.30
On Rs. 1100/-	—	Rs. 2935.30
On Rs. 700/-	—	Rs. 2081.70
On Rs. 550/-	—	Rs. 1640.90
On Rs. 425/-	—	Rs. 1422.90

2. Candidates with engineering qualifications if so required, are liable to serve in any defence service or post connected with defence of India for a period of not less than 4 years including period spent on training, if any, provided that such a person (a) shall not be required to serve on the above post after expiry of ten years, from the date of appointment and (b) shall not be ordinarily required to serve as aforesaid after attaining the age of 45 years.
3. The following posts have been reserved for Scheduled Caste Scheduled Tribe candidates.
Scientist B: Post No. 2 is reserved for Scheduled Caste candidate and Post No. 5 is reserved for Scheduled Tribe candidate. However, if no Scheduled Caste Scheduled Tribe candidates are available, the posts will be treated as unreserved and filled from among General candidates.
Technical Officer E : Post No. 2 is reserved for Scheduled Caste candidate. However, if no SC candidate is available, the post will be treated as unreserved and filled from among general candidates.
Senior Technical Assistant : Post No. 1 is exclusively reserved for SC candidate and Post No. 2 is exclusively reserved for ST candidate.
Technical Assistant : Post No. 1 & 2 are exclusively reserved for ST candidates and Post No. 3 is exclusively reserved for SC candidate.
3. A lower standard consistent with efficiency will apply in the case of Scheduled Caste Scheduled Tribe candidates. Candidates belonging to these communities should invariably enclose an attested copy of the caste certificate issued by a competent authority along with their application failing which they will not be entitled to the concession.
5. The number of vacancies mentioned against each category is provisional and may vary at the time of selection. If more approved vacancies with identical job requirements become available at the time of selection, these also can be filled from the candidates who apply in response to this advertisement.
6. Candidates working in Govt. Semi Govt. Offices Public Sector undertakings should send their applications through their employers so as to reach the Institute within 15 days from the due date of receipt of applications. Advance copy of the applications will be considered only if the original applications are received through proper channel.
7. The Institute has a system of periodic assessment promotion on merit. For this purpose, Scientific and Technical posts are categorised into 4 groups on the basis of nature of work. Group IV is the top most group meant for scientific staff and commences with Group IV(1)—Rs. 700-1300 with scope for promotion from grade to grade upto Group IV(5) —Rs. 2000-1252-2500 subject to prescribed conditions. Group III is the next lower group meant for technical staff and its lowest grade is Group III(1)—Rs. 425-700 with possibility for promotion from grade to grade upto Group III(5)—Rs. 1100-1600 subject to prescribed conditions. Members of Group III possessing M.Sc. B.E. or equivalent qualifications cannot move to Group IV. Their promotion is confined to Group III only.
8. Applications should be submitted in the prescribed form obtainable upto 3.3.1986 on request from the Administrative Officer, Central Leather Research Institute, Adyar, Madras 600 020 by sending a self addressed stamped (90 paise) envelope (25 cms x 15 cms) indicating the No. of Advertisement and the post applied for. Application, complete in all respects, accompanied by a Crossed Indian Postal Order for Rs. 8/- towards application fee (No application fee for Scheduled Caste Scheduled Tribe candidates) should reach him on or before 18.3.1986. Separate application should be sent for each post applied for, along with the requisite Postal Order.
9. Travelling allowance as admissible under the rules will be paid for the interviewed candidates. SC/ST candidates not employed in Govt./Semi Govt. organisation/Govt. undertakings Corporations etc. will be paid travelling expenses as per rules. While enquiries concerning research activities are welcome, interim enquiries regarding recruitment progress or incomplete applications or request for forms without self-addressed and stamped envelope, will not be considered.
10. Since it is not possible to call all the applicants for interview test, the applications will be shortlisted for the purpose and the decision of a duly constituted Screening Committee of the Institute will be final in this matter.

"CANVASSING IN ANY FORM AND/OR BRINGING IN ANY INFLUENCE, POLITICAL OR OTHERWISE, WILL BE TREATED AS A DISQUALIFICATION FOR THE POSTS".

PAU Seminar on New Education Policy

A Seminar on 'Challenges of Education: a policy perspective' was organised by the Punjab Agricultural University, Ludhiana, as part of the national debate on the New Education Policy. Dr. Sukhdev Singh, Vice-Chancellor, who presided over the Seminar said that emphasis should be laid on improving primary education without which it will not be possible to achieve the national goals of universalisation of primary education, vocationalisation of secondary education and excellence in higher education. He observed that 65 per cent of country's population was illiterate and hardly 10 per cent reached secondary schools. It means that the talent in 90 per cent of our population goes waste. The Vice-Chancellor stressed that vocationalisation must be linked with the needs of the industry and the society, otherwise this experiment will not be a success.

Dr. A.S. Atwal, Member (designate) of the Punjab Planning Board, stressed that vocationalisation of education must be according to the available facilities and manpower. He opposed the idea of delinking of job with degrees and remarked that this exercise was not possible in the present set-up of our society.

Dr. K.S. Nandpuri, Director of Extension Education of the Punjab Agricultural University said that the universities, particularly the agricultural universities, must play an effective role in the programme of adult education. Without educating the parents it will not be possible to achieve the objectives of universalisation of education.

The following recommendations emerged at the Seminar:

(1) Efforts should be made to develop creativity among the students without which no society could progress. Educational system

must be aimed at developing human resources. Administrators and planners should know that investment in education is much more productive as compared to investment in other sectors.

(2) Admission to higher education must be based on some priority devised evaluation tests and not merely on the marks obtained in the school certificates.

(3) Agriculture and home science must be made compulsory subjects at all levels of education so that boys and girls going back to their farms and homes could utilize that knowledge. The teaching of social sciences was imperative to develop social responsibility amongst the students.

(4) The universities must be made financially autonomous bodies. Arrangements to create a Central Educational Financial Resource may be made so that universities can be saved from political and bureaucratic interference.

(5) Students should not be encouraged to obtain more than two degrees from the same university. They may be encouraged to join other universities. The exchange of students will not only improve the quality of education and understanding, but also promote national integration and better understanding of our problems.

JNU honours Prof. Papandreou

Jawaharlal Nehru University held a Special Convocation on January 28, 1986 to confer the degree of Doctor of Letters (Honoris Causa) on Prof. A.G. Papandreou, Prime Minister of Greece.

Dr. D.S. Kothari, Chancellor, Jawaharlal Nehru University conferred the degree on Prof. Papen-

dreou in the presence of a distinguished gathering. Prime Minister Rajiv Gandhi also graced the occasion. Prof. P.N. Srivastava, Vice-Chancellor, Jawaharlal Nehru University in his citation described Prof. Papandreou as a distinguished scholar, an eminent statesman and above all, a great humanitarian of our time.

Prof. Papandreou has significantly contributed in the fields of Economics and Politics. He also taught Economics at the Universities of Minnesota and California. He has authored over 15 books and a number of monographs and research articles.

Seminar on Microbe as a tool to control pollution

A one day seminar on 'Microbe as a tool to control Pollution' was organized on 3rd January 1986 in the Department of Microbiology, University of Poona. Dr. V.G. Bhude, Vice-Chancellor, Poona University inaugurated the Seminar. Dr. Deepak Kantawala, an eminent pollution consultant delivered the key-note address. He said pollution should not be considered to be just limited to human beings but also extended to ecosystem. Anything that disturbs the ecological balance should be called a pollutant. As it was not possible to achieve zero pollution, the man-made pollution should not exceed the ameliorative capacity of the nature, he observed.

The seminar was conducted in two scientific sessions. The first session was graced by Dr. Lakhani, Dr. S.T. Tilak and Dr. A.D. Patwardhan. Dr. Lakhani, Director, State Public Health Laboratory, discussed the state of water pollution in Maharashtra. He mentioned that every 6th second, one child is dying of diarrhoea, and this can be prevented just by adding a single drop of a 20% solution of bleaching powder into a bucket of water every day.

Dr. Tilak, Head of the Department of Botany, Marathwada University spoke on prospects of air-pollution. He discussed the role of micro-organisms in monitoring air-pollution. He also drew attention towards the bio-deterioration of ancient sculptures. Dr. A.D. Patwardhan, Senior Technical Manager, Associated described the Industrial Consultants, Bombay recent biological methods of waste treatment.

Dr. Parhad, Dr. Barve and Dr. B. Subbarao participated in the second scientific session.

Dr. Parhad, Prof. of Microbiology, Nagpur University gave an account of various biological methods for reducing pollution. He discussed the competitive viability of biotransformation for treating hazardous (toxic) wastes.

Dr. J.A. Barve of Bayar India, Bombay, gave an illustrative account of biological towers in industrial waste treatment.

Dr. Subbarao, Prof. of Environment Engineering, Sangli, spoke of the contribution of microbiology for waste water treatment.

Rs. 35 lakh laser project cleared for Cochin Varsity

On the recommendation of their Science and Engineering Research Council (SERC), the Government of India in the Department of Science & Technology (DST) have approved, a Rs. 35 lakh research project on high resolution dye laser spectroscopy for the University of Cochin. This is as part of the national efforts at various centres to enter the field of laser revolution sweeping the world of science and technology.

The Chief Investigator of the project is Prof. (Dr.) K. Sathianandan of the University Department of Physics, which has a team of dedicated faculty members and scholars actively engaged in laser

research. While there are several fundamental studies relating to lasers going on in the department, some of the applied aspects under investigation include laser communication, laser drilling and holography.

The high resolution laser spectroscopic studies on the microscopic world of atoms, molecules and particles, are expected to generate a great deal of vital information, which would be impossible to get by any other known means.

News from Agril. Varsities

HAU registers all round progress

Haryana Agricultural University that completed 16 years of its independent existence on 2nd February, 1986 has recorded major strides in the areas of agricultural education, research and extension.

The Directorate of Research is at present monitoring 322 on-going research schemes in Agriculture, Basic Sciences, Veterinary Sciences, Animal Science and Home Science. The State Government has provided financial assistance for 221 research schemes while 101 research schemes are being financed by the Indian Council of Agricultural Research PL-480, Department of Science and Technology and other agencies. Besides research facilities at its main campus at Hisar, the University is strengthening research capabilities at its six research stations at Bawal, Karnal, Kaul, Sirsa, Ambala and Gurgaon with world bank support under National Agricultural Research Project.

As a result of intensive research work done by its scientists the Haryana Agricultural University has

Symposium on work oriented education

A UGC sponsored 3-day symposium on work oriented education is proposed to be held in the Loyola College, Madras sometime in July, 1986. Presentations as case reports or working papers or research papers on Undergraduate Science and Humanities Education are solicited. Interested persons may please write to Rev. N. Casimir Raj, S.J., Principal, Loyola College, Madras-600034.

evolved 60 high yielding varieties of important food, fodder, vegetables and horticultural crops. Research work of developing agro-techniques for dry farming and arid areas is being extensively undertaken. In the arid areas of the region, pearl millet (Bajra) BJ-104 among cereals, green gram (S-9) among pulses and castor Aruna among oilseeds have been recommended as the most productive and remunerative kharif crops. Chick pea C-235 and mustard RH-30 and T-59 have been recommended as the important pulse and oilseed crops for the winter season.

Apart from the release of varieties, greater emphasis is being placed on seed production of new sugarcane varieties, breeder and foundation seed of improved varieties of different crops. Large scale bajra hybrid seed production programme has been taken up this year saving lakhs of rupees which were spent every year for this programme in Gujarat State. True-to-type seedlings of fruit plants of guava crops, mango, papaya are supplied to orchard growers in the state. Several thousand seedlings of popular and eucalyptus are raised and supplied for farm forestry.

The University scientists have also diagnosed glanders, a deadly contagious disease in mules, donkeys and horses at Hisar, Karnal and Rohtak areas after a gap of about a decade. Disease Investigation Laboratories have been provided at most of the district headquarters of the state and the parasitological research station at Uchani (Karnal) has developed a system of disease forecasting.

For rapid improvement of agricultural technology amongst scheduled castes and other backward communities, a special project has been initiated in District Gurgaon under which five villages have been adopted.

The Department of Agro-Forestry and Agro-Meteorology have started teaching programmes at undergraduate level, whereas the Department of Home Science Extension Education has started postgraduate programmes. Postgraduate programme in Chemistry has been added in the College of Basic Sciences & Humanities.

According to Vice-Chancellor, Mr. L.D. Kataria, the system of recruitment has been streamlined and merit-oriented so that the best available talent is recruited to the faculty. Rules of personal promotion have been liberalised in as much as the assessment of teachers will now take place twice during a year. The age of eligibility to personal promotions in the case of non-Ph.D. teachers has been reduced from 55 to 45 years. The limit of financial aid to the families of deceased employees has been enhanced. A Welfare Officer has been appointed to provide ex-gratia benefits expeditiously. The Delay Detecting Unit, recently established to streamline the disposal of pending cases would help in removing the bottlenecks in the clearance of pending cases.

Two new hostels have been recently added providing 194 cubicles

for the students. Creation of posts in Music and Fine Arts will further boost the participation of students in extra-curricular activities.

National seminar on paddy drying

The urgent need of devising a nation wide government policy on cereal milling was stressed at the National Seminar on "Paddy drying and its interactions with milling characteristics" held at G.B. Pant University of Agriculture and Technology, Pantnagar. Sponsored by the Post Harvest Process and Food Engineering Department of the University, the Seminar was attended by representatives of the Govt. of India, officials of U.P. Govt., rice millers and eminent scientists of the country who discussed the field problems and their solutions in respect of cereal milling.

The general consensus at the Seminar was that the millers should consider adopting mechanical drying

equipments since mechanical drying was relatively less expensive in the long-run and resulted in better recoveries. It was emphasized that research should be strengthened on improving drying systems and techniques, reducing breakages during milling, effect of mixing of lots of various moisture content besides the use of solar energy and rice-husk for drying applications and development of 'package of practices' for sun-drying as well as mechanical drying.

It was also suggested that the extension services of the State Govt. should be streamlined by providing post-harvest technology expertise at Block and Dist. level so that current knowledge is made available to millers and processors.

A demonstration of paddy dryer-cum-husk fired furnace developed by the University was also arranged at nearby Kichha Tehsil. The millers desired the University to develop a larger system for use in mills.

CORRESPONDENCE COURSE IN EVALUATION METHODOLOGY & EXAMINATION

Applications are invited from college/university teachers for admission to Correspondence Courses in Evaluation Methodology and Examinations at Basic Level, Intermediate Level and Advanced Level Special Professional Course. The duration of each of the three courses is six months. A personal 'Contact Programme' for three days is planned for each of the three courses. A set of prescribed books will be supplied to every candidate free of cost. The Basic Level Course is offered from Regional Centres like Delhi, Bombay and Madras.

Request for prospectus and application form accompanied by a crossed Indian Postal Order for Rs. 5/- drawn in favour of the Secretary, Association of Indian Universities and a self addressed stamped envelope (Re. 1.-) should reach the undersigned. Last date for receipt of applications is 15th March for non-sponsored and 26th March, 1986 for sponsored candidates.

Project Director (Examinations)

ASSOCIATION OF INDIAN UNIVERSITIES

AIU House, 16 Kotla Marg,
New Delhi-110002.

AIU News

Workshop on Instructional Objectives & Question Banking

A two-day Workshop on "Instructional Objectives and Question Banking" was held at the College of Engineering, Anantapur on 23rd and 24th January, 1986 under the auspices of Jawaharlal Nehru Technological University (JNTU) and Association of Indian Universities (AIU). This is the second workshop in the series conducted by the Jawaharlal Nehru Technological University to orient teachers in the methodology of (1) developing question banks, and (2) expanding the syllabus in every paper so that it can be interpreted in an objective manner.

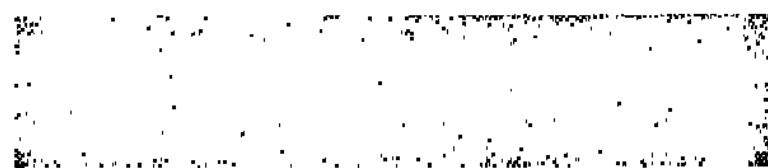
In his inaugural address, Dr. D. Jeebala Rao, Rector JNTU, mentioned the various steps taken by the university in the past to orient the teachers in Teaching and Evaluation Methodology. He hoped that at the end of the Workshop the teachers will be in a position to perform their duties better. Earlier, Mr. Shankar Rao, Principal of the College of Engineering, JNTU, welcomed resource persons, Dr. D. Jeebala Rao, Dr. V. Natarajan, Project Director and Mr. K. Guna- sekharan, Research Officer AIU, and the participants.

Dr. V. Natarajan introduced the scientific procedure of drawing up a syllabus to enable the teachers, students and the paper-setters to interpret it objectively. In order to facilitate a clear interpretation of the syllabus, he suggested that the content be expressed in terms of behavioural outcomes. Through various examples he brought home the point how effective and useful

it is to express the content in terms of specific Instructional Objectives.

There were a few lead lectures in the areas of Question Banking Selection Type & Supply Type question writing with illustrative examples, Test & Item Analysis etc. Participants prepared resource material in their own subjects.

Dr. V. Natarajan of AIU delivered technical talk to the staff of the Indira Gandhi National Open University on "Curriculum development for first degree courses with particular reference to evaluation techniques" on January 29, 1986.



Dronacharya Award for coaches

Govt. of India has instituted Dronacharya Award to honour the Coaches who have rendered meritorious services in raising the standard of sports in the country. Coaches qualified from the Netaji Subhash National Institute of Sports or any other Institution recognised by the Deptt. of Youth Affairs & Sports will be eligible for the Award. The scheme covers both the Olympic and the non-Olympic disciplines as also the indigenous sports recognised by the Govt. of India.

The Award carries a bronze statue of Dronacharya, a scroll, a blazer, a tie and a cash prize of Rs. 25,000.

Indian Universities Rowing Team

The following rowers represented Indian Universities in the National Rowing Championship held at Hyderabad from January 30 to February 2, 1986.

Sandeep Somani (Capt.) and Karan Bhagat (Madras University), Viraj Deosthale, Prashant Aji, Sunil Garkwad, and Shrish Bhagwat (Poona University), Ishtiyaz Mohd. Khan, Ahmed Ali Dastgi, and S.M. Ibrahim Jamsheed (Osmania University).

Mr. Rafeeq Ahmed and Mr. B.G. Edward of Osmania University were the coach and the managers of the team.

EMBASSY OF THE REPUBLIC OF IRAQ

OFFICE OF THE CULTURAL COUNSELLOR

F-42, South Extension, Part-I, New Delhi-49

REQUIRE

the services of following specialists for technical/Teaching and/ or Research work for the academic year 1986-87 commencing September 1, 1986. The candidates must have 4-5 years experience and must be registered with the Ministry of Personnel & Training, Administrative Reforms and Public Grievances, Foreign Assignment Section, Room No. 281, North Block, New Delhi-110001. before appearing for the Interview. Interested candidates may send their applications with two copies of up-to-date bio-data bearing a recent photograph and mailing address, to the Office of the Cultural Counsellor, Iraqi Embassy, F-42, South Extension-I, New Delhi-110049, latest by **MARCH 5, 1986.**

MEDICAL REQUIREMENTS

S. No.	Degree	Subject Field of Specialization	No. of Vacancies
1.	Ph.D.	Immunology	1
2.	Master's degree	Medical Technique	1
3.	Bachelor degree	-do-	1
4.	Diploma	Medical Parasites	1
5.	Diploma	Bio-chemistry Clinical Laboratory	1
6.	Ph.D. or equivalent	Community Medicine	1
7.	-do-	-do- Medical Bio-statistics	1
8.	-do-	-do- Demography	1
9.	Ph.D.	Anatomy/ General Anatomy	2
10.	Ph.D.	-do- Embryological Anatomy	1
11.	Diploma	-do- Preservation and mummification of corpses	1
12.	Technical Diploma	-do- Tissue preparation (qualified for working in Tissue preparation laboratories)	1
13.	Ph.D. or Equivalent	Diagnostic Microbiology/Viral, Chlamydial, Rickettsial, Diagnostic Bacterial, fungal, Spirochetal.	1
14.	Ph.D. or Equivalent	Micro-biology/Viral, Chlamydial Rickettsial, Bacterial, fungal, Parasitical, Spirochetal	1
15.	F.R.C.S./ American Board	Diagnostic X-ray/X-Ray of Nervous system	1
16.	-do-	Surgery /Plastics Surgery	1
17.	-do-	General Surgery-Kidney & Urinary tract. system	1
18.	-do-	-do- /Gastro-intestinal tract. system	1
19.	M.R.C.H.	Medicine Psychology	1
20.	M.R.C.P. or equivalent	-do- Tropical & Infectious Diseases	1
21.	-do-	-do- Diseases of nervous system	1
22.	-do-	-do- Diseases of immunological system	1
23.	-do-	-do- Diseases of cardiovascular system	1
24.	-do-	-do- Diseases of Kidney and Urinary system	1
25.	-do-	-do- Diseases of Digestive system	1
26.	Ph.D. or equivalent	Medicine Histology Histology of Nervous System	1
27.	-do-	Forensic Medicine	1
28.	M.R.C.P. or equivalent	Medicine Diseases of Endocrine system	1
29.	-do-	-do- Diseases of Blood	2
30.	-do-	-do- Arthritis and its allied disorders	1
31.	M.R.C.P./ American Board or equivalent	-do- Diseases of Respiratory system	1

32.	-do-	-do-	Senile Diseases	1
33.	-do-	-do-	Dermatology and Veneral diseases	1
34.	-do-	-do-	General Medicine	1
35.	Diploma	Anatomy	Museum/Mummification/Sample Preparation	1
36.	Diploma	Electronic Microscope		1
37.	Ph.D. or equivalent			
38.	-do-	Pediatric		1
39.	-do- or	Gyane. & Obstetric		6
	M.R.C.P./			
	American Board			
40.	Ph.D. or equivalent	General Surgery		2
41.	-do-	Orthopaedics & Fractures		2
42.	-do-	Clinical Psychology		1
43.	-do-	Clinical Haematology		1
44.	-do-	Anaesthesiology		1
45.	-do-	Neuro-surgery		1
46.	-do-	Ophthalmology		1
47.	-do-	Neurology		1
	DENTAL.			
48.	-do-	Maxillofacial Prosthodontics (Dental)		1
49.	-do-	Crown and Bridge Prosthodontics		1
50.	-do-	Complete and Partial Prosthodontics		1
51.	-do-	Endodontics		1
52.	-do-	Dental Conservation (Operative)		1
53.	-do-	Maxillofacial Surgery		1
54.	-do-	Oral Surgery and Periodontics		1
55.	-do-	Oral Medicine		1
56.	-do-	Preventive Oral Medicine		1
57.	-do-	Pedodontology		1
58.	-do-	Oral Radiology		1
59.	-do-	Oral Histology		1
60.	-do-	Oral Pathology		1
61.	-do-	Orthodontics		1

ENGINEERING & SCIENCE REQUIREMENTS

S. No.	Degree	Subject	Specialization	No. of Vacancies
1.	M.E.	Elect. Engg.	Electronics	1
2.	-do-	-do-	Machines	1
3.	-do-	-do-	Power	1
4.	-do-	Civil Engg.		1
5.	-do-	Mech. Engg.	Refrigeration	1
6.	-do-	Mech. Engg.	Cars	1
7.	-do-	Instrument Engg.	Medical	1
8.	Bachelor	Mech. Engg.		1
9.	Ph.D. or equivalent	Civil Engg.	Structures	1
10.	-do-	Civil Engg.	Transportation	1
11.	-do-	Surveying	Plane and aerial surveying	1
12.	-do-	Civil Engg.	Descriptive Geometry	1
13.	-do-	Mech. Engg.	Heat Transfer	1
14.	-do-	-do-	Mechanics of Machines	1
15.	-do-	-do-	Heat Engines	1
16.	-do-	-do-	Manufacturing Processes	1
17.	-do-	-do-	Mechanical Drawing	1

18.	-do-	-do-	Mechanics of Material	1
19.	-do-	-do-	Fluid Mechanics	1
20.	-do-	Civil Engg.	Hydrology	1
21.	-do-	Irrigation Engg.	Irrigation and Drainage Structures	1
22.	-do-	Civil/Irrigation Engg.	Drainage & Land Reclamation	1
23.	-do-	Civil Engg.	Fluid Mechanics & Hydraulics	1
24.	-do-	Architecture	History & Theory	1
25.	-do-	-do-	Residential Buildings	1
26.	-do-	-do-	Public buildings	1
27.	-do-	-do-	Town Planning	1
28.	-do-	-do-	Landscape Design	1
29.	-do-	-do-	Free Hand drawing	1
30.	-do-	-do-	Agricultural Buildings	1
31.	-do-	-do-	Interior Design	1
32.	-do-	-do-	Climate and Environment	1
33.	-do-	Civil Engg.	Structure-Construction	1
34.	-do-	Civil Engg.	Material	1
35.	-do-	Elect. Engg.		1
36.	-do-	Elect. Engg.	Satelite Communication	1
37.	-do-	Control Engg.	Computer, Instrumentation, Computer Science	1
38.	-do-	Computer Sc. Engg.		1
39.	Ph.D.	Instrumentation Engg. & Measurement Engg.		1
40.	-do-	Computer Control Engg.		1
41.	-do-	Dynamics Engg.		1
42.	-do-	Elect. Engg.	Power System	1
43.	-do-	Elect. Engg.	New Generation of fine Computers	1
44.	-do-	Elect. Engg.	Electronics Control	1
45.	-do-	Robot Engg.		1
46.	-do-	Computer Science		4
47.	Ph.D. or equivalent	Civil Engg.	Soil Mechanics	2
48.	-do-	Civil Engg.	Water Resources	2
49.	-do-	Electronics Engg		2
50.	-do-	-do-	Communications	2
51.	-do-	Elect. Engg.	Machines	2
52.	-do-	Elect. Engg.	Elect. Power & Machines	4
53.	-do-	Control System		1
54.	Ph.D.	Laser Physics		4
55.	M.Sc.	Computer Science		5
56.	Ph.D.	Maths.	Analytical Maths.	1
57.	-do-	Maths.	Statistical	1
58.	-do-	Maths.	Operational Research	1
59.	-do-	Computer Programming		2
60.	-do-	Design of Transulators, decoding of computer programming (Computer Science)		1
61.	-do-	Computer Circuits		1
62.	-do-	Computers	Information Theory and application	1
63.	Ph.D. or equivalent	Statistical & Maths. Analysis (True)		1
64.	-do-	-do- -do- -do- (Mechanical)		1
65.	-do-	-do- -do- -do- (Numerical)		1
66.	-do-	-do- -do- (Operational Research)		1
67.	-do-	Applied Statistics		1
68.	-do-	Applied Maths.		6

69.	-do-	Maths. (Bounded Geometry)	1
70.	-do-	Maths. (Groups and rings)	1
71.	-do-	Topology	1
72.	-do-	Nuclear Physics	1
73.	-do-	Theoretical Physics	1
74.	-do-	Physical Chemistry	1
75.	-do-	Molecular Biology	1
76.	-do-	Hydrogeology	1
77.	-do-	Maths. Curving Analysis	1

AGRICULTURAL REQUIREMENTS

S. No.	Degree	Subject	Specialization	No. of Vacancies
1.	Ph.D. or equivalent	Fungi Taxonomy		1
2.	-do-	Plant Taxonomy		1
3.	-do-	Genetics		1
4.	-do-	Insects		1
5.	-do-	Bacteriology		1
6.	-do-	Hydrogeology		1
7.	-do-	Plant Physiology		1

COLLEGE OF ARTS

S. No.	Degree	Subject	Specialization	No. of Posts
1.	Master's or Ph.D.	Handicraft		1
2.	-do-	Design & Textile Printing		1
3.	Ph.D.	Modern Art History		1
4.	Master's degree or Ph.D.	Interior decoration (Furniture)		1

GENERAL TERMS & CONDITIONS

Note : 1 Iraqi Dinar = US\$ 3.2

1. A holder of B.A. B.Sc. is granted a salary of Iraqi Dinar (ID) 150/- plus ID 5/- for each year of experience, on condition that his salary does not exceed ID 250 - per month after adding experience allowance.
2. A holder of B.A. B.Sc. in Medical, Agriculture, Engineering, Business Administration, Accountancy, is granted a monthly salary of ID 175/- on condition that his salary does not exceed ID 275/- after adding a sum of ID 5/- for each year of experience.
3. A holder of M.A. M.Sc. in Medical, Engineering, Agriculture, Statistics, Business Administration, Accountancy, Basic Sciences, is granted a monthly salary of ID 250 -, on condition that his salary does not exceed ID 375 - after adding a sum of ID 5 - for each year of experience after M.A. M.Sc.
4. A holder of M.A. M.Sc. in subjects other than mentioned at (3) above, is granted a monthly salary of ID 200/- on condition that his salary does not exceed ID 300 - after adding a sum of ID 5 - for each year of experience after M.A. M.Sc.
5. A holder of Ph.D. is granted a monthly salary of ID 375,- on condition that his salary does not exceed ID 475/- after adding a sum of ID 5/- for each year of experience after Ph.D.
6. A holder of Ph.D. in Medical, Engineering, Basic Sciences, Agriculture, Business Administration, Statistics, Accountancy, is granted a monthly salary of ID 425 - on condition that his salary does not exceed ID 575/- after adding a sum of ID 5/- for each year of experience after Ph.D.
7. Full Professorship allowance is ID 20/- per month.
8. Accommodation allowance is ID 60/- per month for single and ID 150/- per month, if accompanied by family.
9. Air-tickets would be provided for self, wife and two children below the age of 18 years, at the time of joining and on the expiry of the assignment.
10. Full protection is ensured as per the Iraqi laws for self, and the members of the family.
11. Initially the period of contract would be for one year and is likely to be extended on mutual agreement.
12. The relevant Institution/Universities undertake to pay the medical fees of the foreigners along with their members of the family, in public hospitals.
13. Annual leave is 45 days, in general.
14. The remittance allowed is 60% per month.

AIU Library & Documentation Services

One of the important functions of the Association of Indian Universities is to act as a clearing house of information on higher education in the country. Towards this end the AIU Library is engaged in collection, building and developing instruments for the dissemination of research information. Over the years a valuable collection of books and documents on different aspects of higher education has been acquired.

The Library has also developed Bibliography of Doctoral Dissertations as an effective tool in the dissemination of research information. Retrospective bibliographies covering the period 1857-1970 and 1970-75 were the first to appear. Effective 1975, however, the bibliography is issued annually in two volumes. One volume deals with Natural and Applied Sciences while the other records doctoral degrees awarded in Social Sciences and the Humanities. In addition to the normal bibliographical details like the name of the Research Scholar, the title of the thesis, years of registration for and award of the degree, and the name of the University accepting the thesis for award of a doctoral degree, the bibliography also gives name and complete address of the supervising teacher and an availability note that seeks to inform whether a copy of the dissertation is available for consultation and use in the University Library/Department or Registrar's Office.

The columns 'Theses of the Month' and 'Research in Progress' are intended to cut out the time lag between the receipt of information and its inclusion in bibliography. Such Universities as are not sending us regular information in respect of Doctoral Theses accepted and research scholars enrolled are welcome to make use of these columns.

The Library is open from 9.30 a.m. to 5.30 p.m. Monday through Friday.

A list of Research Scholars Registered for Doctoral Degrees of Indian Universities

PHYSICAL SCIENCES

Mathematics

1. Baish, Shival Singh. *Some problems in general topological spaces*. HS Gour, Sagar. Dr. K.K. Dube.
2. Gangele, Sudhir Kumar. *Topology and measurable spaces*. HS Gour, Sagar. Dr. K.C. Shrivastava.
3. Gupta, Dhruv Kumar. *Some problems on fixed point theorem multivalued and sequence of contraction mapping*. HS Gour, Sagar. Dr. S.N. Maheshwari.
4. Hardikar, Sanjay. *Fixed point theorems on statistical spaces*. HS Gour, Sagar. Prof. P.L. Sharma.
5. Koshti, Sanjay Kumar. *Some problems on separation axioms in topology*. HS Gour, Sagar. Dr. K.K. Dube.
6. Lalchandra. *Fixed point theorems*. HS Gour, Sagar. Dr. K.C. Shrivastava.
7. Mailat, Vijay Kumar. *Harmonic analysis*. HS Gour, Sagar. Dr. K.C. Shrivastava.
8. Mishra, Rakesh Kumar. *Some problems on fixed point theorems*. HS Gour, Sagar. Prof. P.L. Sharma.
9. Shrivastava, Prabeen Kumar. *Some problems on fixed point theorems*. HS Gour, Sagar. Dr. R.K. Jain.

Physics

1. Arvind Kumar. *Study of atom-molecule collisions in the presence of laser field*. BHU, Varanasi.
2. Krishna, T.S.R.C.M. *Measurement of upper atmospheric temperature*. U Delhi. Prof. J.N. Tandon and Dr. M.M.M. Rao.
3. Lalla, Niranjana Prasad. *Growth, synthesis characterization and electronic behaviour of semiconducting materials wide band gap energy conversion*. BHU, Varanasi. Prof. O.N. Srivastava and Dr. R.S. Tiwari.
4. Pandya, Arun. *Electrical transport properties of II-VI compound semi-conductors*. U. Delhi. Prof. P.N. Dheer.

5. Rohani Zakaryeh. *Fluorescence studies*. U Delhi. Prof. M.N. Machve.

6. Shiv Kumar. *Piezoelectric films*. U Delhi. Prof. Abhai Mansingh.

Chemistry

1. Ahuja, Renu. *Synthesis of natural polyphenolics*. U Delhi. Dr. S.K. Grover.
2. Anita. *Studies of thermodynamic and transport properties of some multicharged electrolytes involving binary aqueous mixtures*. HPU, Shimla. Dr. M.L. Parmar.
3. Goyal, Rama Kant. *Study of interactions between electrolytes and biomolecules in aqueous solutions*. U Delhi. Dr. R.K. Bedi.
4. Gupta, Neelam. *Synthesis and juvenile hormone activities of some hetero aromatic juvabione analogues and related compounds*. HPU, Shimla. Dr. R.K. Mahajan.
5. Gupta, Pawan Kumar. *Study of amino acids and fatty acids as geochemical markers in Indian petroleum crude oil and sediments*. HPU, Shimla. Dr. C.S. Pandey.
6. Khare, Ajay Kumar. *Studies of zeolite molecular sieves*. HS Gour, Sagar. Prof. S.P. Banerji.
7. Lomash, Shashikant. *Mass and transport properties of some metal acetates in acetic acid*. HPU, Shimla. Dr. R.L. Bhokhra.
8. Paliwal, Poonam. *Synthetic and constitutional studies in natural polyphenols*. U Delhi. Prof. A.C. Jain.
9. Sharma, Devender Kumar. *Determination of some organic compounds of pesticidal importance*. HPU, Shimla. Dr. B.C. Verma.
10. Sharma, Usha. *Determination of xanthates and related compounds*. HPU, Shimla. Dr. B.C. Verma.
11. Tiwari, Neelima. *Phytochemical investigation of some gardenia plants*. HS Gour, Sagar. Dr. D.K. Mukhariya.

12. Verma, Rashmi. *Reactions at the double bond of amines and olefins under phase transfer conditions*. HPU, Shimla. Dr. C.S. Pandey.

Engineering and Technology

1. Jalaja Kumari, B. *Studies on the clay-polymer composites*. U Ker. Trivandrum. Dr. K.G. Sathyanarayana and Dr. K.G.K. Warriar.
2. Pillai, K. Mohanchandran. *Recursive methods in computing theory and practice*. U Ker, Trivandrum. Dr. C.G. Sukumaran Nair.

BIOLOGICAL SCIENCES

Anthropology

1. Anuradha, K. *Forensic anthropology modifications of techniques for finger prints developments*. U Delhi. Dr. Surinder Nath.
2. Balvinder Kaur. *Human growth and development*. U Delhi. Prof. Raghbir Singh.
3. Das, Jogeshwar. *Anthropology, development of behaviour in free ranging macaques*. U Delhi. Dr. P.K. Seth and Dr. S. Seth.
4. Jain, Rita. *Physical anthropology: Association of diabetes mellitus with dermal ridge pattern*. U Delhi. Dr. Surendra Nath.
5. Mukherji, Paushali. *Genetics of some respiratory diseases and their association with some genetical markers*. U Delhi. Prof. S.C. Tiwari.

6. Sachdeva, Varsha. *Human growth and development study of shape changes in children*. U Delhi. Dr. Surinder Nath.

Botany

1. Bisht, Madho Singh. *Cytogenetics and breeding of Vicia*. U Delhi. Dr. S.N. Raina.
2. Farida, Ajay Kumar. *Genome organization and evolution*. U Delhi. Dr. S.N. Raina.
3. Mathur, Mukul. *Biochemistry and plant molecular biology*. U Delhi. Dr. R.C. Sachar.
4. Mehta, Minnie. *Control of differentiation in plants*. U Delhi. Prof. S.C. Maheshwari.
5. Sharma, Manju. *Zonation in apical meristems of angiosperms*. U Raj, Jaipur. Dr. (Mrs) Ambuja Pillai.
6. Sood, Abha. *Plant molecular biology and biochemistry*. U Delhi. Prof. R.C. Sachar.

Zoology

1. Purohit, Snehlata. *Histochemical and histopathological studies on the trematode *Ceylonocotyle scolicoelium* Fischöder, 1904, occurring in sheep in Indore region*. Devi Ahilya, Indore. Dr. O.N. Bharadwaj.

Medical Sciences

1. Agrawal, Aruna. *Clinical and experimental evaluation of certain indigenous psychotropic drugs in the prevention and management of psychosomatic disorders*. BHU, Varanasi. Dr. G.P. Dubey and Dr. K.N. Udupa.

THESES OF THE MONTH

A list of Doctoral Theses Accepted by Indian Universities

PHYSICAL SCIENCES

Mathematics

1. Daniel, Jacob K. *Queueing and inventory models with rest periods*. U Cochun.
2. Dixit, Prakash. *Some problems on fixed point theorems*. HS Gour, Sagar.
3. Jain, Rita. *Thermal effect on some vibration problems of rotating elastic beams*. U Roorkee.
4. Mishra, Aruna Kumari. *A thesis on heat transfer in the flow of a few newtonian and non newtonian liquids with or without magnetic field*. Utkal U, Bhubaneswar.
5. Shobha, Boppana. *A new approach to simple and related queues*. IIT, Delhi.
6. Singh, R.C. *Expressions of special functions in terms of linear algebra*. Kumaun U, Nainital.
7. Upreti, L.M. *Fractional integration and generalized integral transforms*. Kumaun U, Nainital.

Statistics

1. Kumar, Jay Shree. *On estimation of parameters*. Vikram U, Ujjain.

Physics

1. Baby, B.V. *Some non-linear problems in theoretical physics*. U Cochun.
2. Chandra Prabha, C.N. *Elastic and inelastic scattering of electrons by atoms*. MSU, Baroda.
3. Jagadeesh, A. *Optimum utilisation of wind energy with reference to rural India*. U Roorkee.
4. Khemani, Lachhman T. *Characteristics of atmospheric gaseous and particulate pollutions and their influence on cloud microphysics and rain formation*. U Poona.
5. Parthasarathy, Badami. *Some aspects of large scale fluctuations in the summer monsoon rainfall over India during 1971 to 1978*. U Poona.
6. Saxena, Devendra Sahay. *A study of BaS, Mn, Ce, Cu, electroluminescent system*. APSU, Rewa.
7. Sharma, Ganesh Datt. *Photovoltaic studies on some organic dyes*. IIT, Delhi.
8. Shroff, Niloufer Noshir. *Investigations of the optoelectronic properties of some photosensitive systems with special reference to their use in solid state image intensifiers*. IIT, Delhi.

9. Suresh Babu, D. *Electron paramagnetic resonance studies of structural phase transitions in some single crystals*. OU, Hyderabad.

10. Tiwari, Ramesh Chandra. *Study of electrical breakdown of solid dielectrics*. HS Gour, Sagar.

11. Ummat, Neelam. *Theoretical studies of fusion and fission processes in heavy ion collisions*. Pb U, Chandigarh.

Chemistry

1. Bhattacharjee, Kaushik Kumar. *Molecular orbital calculations on some metalloporphyrins and related systems*. NEHU, Shillong.
2. Bhosale, Shamrao S. *Synthetic studies in biologically active organic compounds*. U Poona.
3. Chaudhary, Purnima. *Kinetics of oxidation of glycols and other dihydroxy compounds*. Kumaun U, Nainital.
4. Das, Durga Prasad. *Studies on inorganic oxide system containing copper and zinc oxide*. ISM, Dhanbad.
5. Das, Mathurmohan. *Studies on sulphur vulcanization of rubber in presence of mixed accelerator systems*. U Calcutta.
6. Datar, Asha S. *Studies of diffusion reaction in porous catalysts*. U Poona.
7. Durgapal, Rekha. *Synthesis and screening of some new fungicides*. Kumaun U, Nainital.
8. Furtado, Manohar R. *Structural studies and evolutionary analysis of rapid haemoglobins*. U Poona.
9. Gandhi, Ginchandra C. *Studies in the chemistry of natural products*. U Poona.
10. Goel, S.P. *Preparation, characterisation and thermal studies on some oxomolybdenum (VI) oxalate systems*. U Roorkee.
11. Govindappa, T. *Studies on esterases from the latex of *Synadenium grantii* Hook "F"*. Bangalore U.
12. Goyal, Manorama. *Physico-chemical investigation of some metal complexes with Mannich bases*. Devi Ahilya, Indore.
13. Jagbir Kaul. *Synthetic studies in thiadiazole quinoxalines and some other fused heterocyclics*. Pb U, Chandigarh.
14. Jiragi, Bhikshappa S. *Physico-chemical studies on metal complexes utilizing thiocarbonyl compounds as ligands*. Gulbarga U.
15. Joshi, Jyoti. *Complexation studies of praseodymium and neodymium with some organic acids*. Bhopal U.

16. Khanduri, Gita. *Physico-chemical studies on the irradiated hexacyano and octacyano complexes in presence of organic bases and heavy metal ions*. U Roorkee.

17. Khare, Ramesh Kumar. *Study of the effect of different levels of nitrogen and phosphorus on their uptake and yield of gram, Cicer arietinum L and soyabean, Glycine max L. Merrill using rhizobium inoculants*. RDV, Jabalpur.

18. Malik, Prabhha. *Kinetics and mechanism of oxidation of certain organic compounds by periodate ion*. U Roorkee.

19. Mehta, V.K. *Chemical examination of Indian medicinal and aromatic plants*. Kum U, Nainital.

20. Melkani, A.D. *Chemical study of some indigenous medicinal and toxic plants*. Kum U, Nainital.

21. Mishra, V.P. *Preparation and characterisation of some mixed ligand complexes of amino acids and acid imides*. U Roorkee.

22. Mouli, P. Chandra. *Extraction spectro-photometric studies on the ternary complexes of Hg (II) and Zn (II) and their analytical applications*. Nagarjuna U.

23. Nagarjun Rao, Ch. *Stability constants of isoxazoles with biologically important metal ions and lanthanides*. OU, Hyderabad.

24. Naik, Rajan H. *Synthetic studies in terpenes*. U Poona.

25. Nayak, Sanjay Kumar. *Studies in photopolymerization*. Utkal U, Bhubaneswar.

26. Noel, T. M. *Studies on electron transfer homogeneous redox catalysis of glassy carbon electrodes*. Madurai Kam U.

27. Pal, Naresh. *Studies on the removal of some organic and inorganic pollutants*. U Roorkee.

28. Pant, C.S. *Chemical examination of some important fodder grasses of Nainital region with special reference to their nutritive value*. Kum U, Nainital.

29. Parikh, Pravinchandra Chimantlal. *Studies on metal complexes*. Bhavnagar U.

30. Patwardhan, Bhushan K. *Chemical and biological studies on Semecarpus anacardius L. nut extracts*. U Poona.

31. Pavasi, Angad Prasad. *Kinetics of oxidation of organic compounds by quinquivalent in acid medium*. APSU, Rewa.

32. Pedharkar, Vishwanath Ramechandra. *Studies in metal complexes of substituted (B.N. C) anacardyl hydrazones*. Jiwaji U.

33. Prasad, A.R. *Synthesis of nitrogen heterocycles of biological, pesticidal and synergistic interest*. U Roorkee.

34. Puri, Micky M.M. *Hydrothermal synthesis and structural properties of trioxalatozeolite complex phases and characteristics of competitive cationic exchange in commercial zeolites*. U Poona.

35. Purnima. *Oxidation of carboxylic acids by aqua metal ions*. Kum U, Nainital.

36. Ranbaore, Vilas. *Synthesis and structural studies of metal complexes with some ethanolamine derivatives*. OU, Hyderabad.

37. Sahni, Veena. *Kinetic study of some amino phosphates*. Jiwaji U.

38. Sharma, Radha. *Studies in some chemical aspects of grasses and legumes of Kumaun*. Kum U, Nainital.

39. Sharma, Rambabu. *Efficacy of Friedel-Crafts metals and halides*. Jiwaji U.

40. Swamy, P. Yadagiri. *Electrochemical reduction of pyridine dicarboxylic acids at mercury cathode*. OU, Hyderabad.

Earth Sciences

1. Rathavendra Prasad, G.V. *Microvertebrates and associated micro-fossils from the sedimentaries associated with Deccan Traps of the Asifabad Region, Adilabad District, Andhra Pradesh*. Pb U, Chandigarh.

2. Tiwary, Anand Murari. *Geohydrological and sedimentological studies of Hutar coalfield, District Palamau, Bihar, India*. U Bihar, Muzaffarpur.

Engineering & Technology

1. Agarwala, Vijaya. *Ageing characteristics of rheocast aluminium copper alloys*. U Roorkee.

2. Ashok Kumar. *Investigation of fine grain steel 15MnNi 63 in normalised and quenched and tempered conditions with special regard to the properties of heat affected zone of weldments*. U Roorkee.

3. Chakraverti, G. *Study of the factors contributing to tool failure in interrupted cutting*. U Roorkee.

4. Garibdas, Chandrakant Deorao. *Use of precast prestressed elements in bridges of minor spans with transverse prestressing and M.S. Rein for cement*. Nagpur U.

5. Madhusudhan, V. *Studies on the preparation and utilisation of chemically reactive derivatives from cashewnut shell liquid and cardanol*. OU, Hyderabad.

6. Prasad, N. Rajendra. *Investigations on pool boiling heat transfer in the high heat flux region*. U Roorkee.

7. Rao, Neelamraju Hanumantha. *Operational management of irrigation systems for single and multiple crops*. IIT, Delhi.

8. Sehgal, Shashikala. *Phase change materials for thermal energy storage*. IIT, Delhi.

9. Srivastava, S.B. *Study of ground behaviour in the mining of a copper deposit by postpillar method at Mosa Bonisunda mines of Hindustan Copper Limited, Ghatesila, Bihar*. ISM Dhanbad.

10. Surendra Singh. *Theomechanical aging of 2014 aluminium alloy*. U Roorkee.

11. Thomas, F.N. *Development of energy saving forms of natural rubber*. U Cochin.

12. Viswanadham, A.N.3 *Studies on coal oil mixtures*. ISM, Dhanbad.

OFFICE OF THE PRINCIPAL

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K. C. Murry
PRINCIPAL

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Advertisement No. 26/85-86

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2. **Principal, Women's Polytechnic**
Scale of pay : Rs. 1500-60-1800-100-2000-125/2-2500 plus allowances.

Qualifications

- (1) Master's degree in Engineering/Technology
- (2) Atleast 10 years experience of teaching
- (3) Preference will be given to those having some administrative experience in some Engineering Institution

3. **Principal, Women's College**

Scale of pay : Rs. 1500-60-1800-100-2000-125/2-2500 plus allowances

Qualifications

Candidates should possess high academic qualifications in Arts, Social Sciences or Science. In addition they should have sufficient teaching and administrative experience in senior posts of a Women's College.

Note : ONLY WOMEN CANDIDATES NEED APPLY. THOSE WHO HAVE APPLIED EARLIER NEED NOT APPLY AGAIN.

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Scale of pay : Rs. 1100-50-1600 plus allowances

Qualifications

- A. 1. Master's degree or Honours degree of a foreign University recognised as equivalent to the Master's of an Indian University by the U.P.S.C. or Honours degree of such Indian Universities as may be recognised equivalent to the Master's degree by the U.P.S.C.
2. A teaching degree or a Diploma in education or its equivalent; and
3. Experience as required under any one of the following clauses :
 - (a) Atleast 3 years experience of administrative charge of a recognised college having Intermediate or higher classes.
 - (b) Atleast 5 years experience of administrative charge of a recognised High School.
 - (c) Atleast 5 years experience of teaching in a recognised College or Higher Secondary School or an equal teaching experience in a Teachers Training Institution.
 - (d) Atleast 8 years teaching experience in a recognised Higher Secondary School.
 - (e) Atleast 5 years experience including 3 years educational administrative experience and 2

years teaching experience in a recognised High or Higher Secondary School or a Teacher Training Institution.

- B. Bachelor of Engineering with 5 years teaching experience in a recognised college or Higher Secondary School

OR

- C. The Trained Graduate Head of recognised High Schools who have attained the age of 45 years and possess atleast 15 years teaching experience of Secondary Classes in a recognised High/Higher Secondary School (including atleast 5 years administrative experience as Head of a recognised High School).

OR

- D. Persons possessing Master's degree with atleast 15 years teaching experience in a recognised Higher Secondary School and/or a recognised college and have attained the age of 45 years.

OR

- E. The Trained Post Graduate Heads of the recognised Middle Schools, who possess atleast 8 years administrative experience as Heads of recognised Middle Schools.

OR

- F. Persons possessing Master's degree in Education and having the requisite as provided for in any one of the foregoing clauses A to E.

NOTE: Two or more categories of experience can be proportionately combined of experience under categories 3 (c) and (d) of A are concerned they could be combined in the proportion of 5:8 or 8:5 as the case may be.

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5. **Professor of Geology, Department of Geology.**
6. **Professor of Sociology, Department of Sociology.**
7. **Professor of Education, Department of Education.**
8. **Professor of Linguistics, Department of Linguistics.**

Qualifications

I- Essential

An eminent scholar with published work of high quality actively engaged in research. About ten years experience of teaching and/or research. Experience of guiding research at doctoral level.

OR

An outstanding scholar with established reputation who has made significant contribution to knowledge.

II-Desirable

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Specialisation in any one of the following areas :

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9. **Reader in Geography, Women's College**
10. **Reader in Economics, Department of Economics.**

Qualifications :

Good academic record with a doctoral degree or equivalent published work. Evidence of being actively engaged in (i) research or (ii) innovation in teaching methods or (iii) production of teaching materials.

About five years experience of teaching and/or research provided that atleast three of these years were as Lecturer or in an equivalent position.

This condition may be relaxed in the case of candidates with outstanding record of Teaching/Research

NOTE : FOR POST NO. 9. READER IN GEOGRAPHY.

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11. **Lecturer in Statistics, Department of Statistics.**
12. **Lecturer in Mathematics (Temp.) Maths. Section, Engg. College.**
13. **Lecturer in Physics, Women's College.**
14. **Lecturer in Botany, Women's College.**
15. **Lecturer in Urdu, Women's College.**
16. **Lecturer in Arabic, Department of Arabic**
17. **Lecturer in Hindi, Department of Hindi**

Qualifications

I-Essential

- (a) A Doctor's degree or research work of an equally high standard; and
- (b) Good academic record with atleast second class (C in the seven point scale) Master's degree in a relevant subject from an Indian University or an equivalent degree from a foreign University.

Having regard to the need for developing inter-disciplinary programmes, the degrees in (a) and (b) above may be in relevant subjects.

Provided that if the Selection Committee is of the view that the research work of a candidate as evident either from his thesis or from his published work is of very high standard, it may relax any of qualifications prescribed in (b) above.

Provided further that if a candidate possessing a Doctor's degree or equivalent research work is not available or is not considered suitable, a person possessing a good academic record (weightage being given to M.Phil or equivalent degree or

research work of quality) may be appointed provided he has done research work for atleast two years or has practical experience in a research Laboratory/Organisation on the condition that he will have to obtain a Doctor's degree or give evidence of research of high standard within eight years of his appointment, failing which he will not be able to earn future increments until he fulfils these requirements.

II-Desirable

FOR POST NO 16 LECTURER IN ARABIC

Teaching experience and some published works.

NOTE : ONLY FOR POSTS NOS. 13, 14 & 15.

Preference will be given to women candidates.

FACULTY OF ENGINEERING & TECHNOLOGY

18. Professor of Civil Engineering (Hydraulics) Department of Civil Engineering.

Scale of pay : Rs. 1500-60-1800-100-2000-125/2-2500 plus allowances

Qualifications :

An eminent scholar with published work of high quality actively engaged in research. Ten years experience of teaching and/or research. Experience of guiding research at doctoral level

OR

An outstanding Engineer/Technologist with established reputation who had made significant contribution to knowledge.

19. Reader in Civil Engineering, Department of Civil Engineering.

Scale of pay : Rs. 1200-50-1300-60-1900 plus allowances.

Qualifications

A good academic record with a Doctor's degree in a relevant field. About five

years experience of teaching and/or research and development.

Provided further that candidates not possessing Ph.D may be considered if they have to their credit equivalent research published work or design/development work of a high order either in the Institution or in an Industry.

OR

In the case of persons to be recruited from Industry or Professional fields, candidate should possess good academic record with recognised professional work of about seven years which should include innovation and/or research and development.

20. Lecturer in Mechanical Engineering, Mechanical Engineering Section, University Polytechnic.

Scale of pay : Rs. 700-40-1100-50-1600 plus allowances.

Qualifications

(a) Master's degree in appropriate field in Engineering/Technology.

(b) Consistently good academic record with a Bachelor's degree in Engineering/Technology. First class at Bachelor's degree and/or Master's degree level.

(c) One year's relevant professional experience outside academic/research Institutions.

Having regard to the requirement of emerging fields of Engineering and of developing inter-disciplinary programmes, the requirements of Engineering/Technology degrees may be waived in the cases of otherwise well qualified candidates.

Provided further that if a candidate does not possess professional experience or a person possessing such experience is not found suitable, the person appointed will be required to obtain desired professional

experience within a period of five years of his appointment failing which he will not be able to earn future increments, until he fulfils this requirement.

If the candidates with M.Tech./M.E. qualifications are not available or not found suitable for appointment the essential qualifications may be relaxed and first class Engineering graduates may be appointed subject to the condition that the candidate concerned shall have to obtain the M.Tech./M.E. degree within a period of five years failing which he will not be able to earn future increments until he acquires the prescribed qualifications.

Higher initial start may be given to candidates possessing exceptional qualifications and experience. Candidates interviewed may be paid contribution towards their T.A. equal to one single second class Railway fare only.

Prescribed application forms and instructions may be had from the Assistant Registrar (Selection Committees), Registrar's Office, A.M.U., Aligarh on payment of Rs. 5/- to be deposited in the Cash Section, Finance Office, A.M.U., Aligarh or through an Indian Postal Order payable to the Finance Officer, A.M.U., Aligarh either personally or by sending a self-addressed stamped envelope of size 23 x 10 cm.

Last date for receipt of applications is 10th March, 1986 (during office hours). Incomplete applications and those received late will not be considered.

NOTICE : SUITABLE PERSONS MAY BE KEPT ON PANEL FOR FUTURE APPOINTMENT.

Syed Shahid Ali
REGISTRAR

GUJARAT AGRICULTURAL UNIVERSITY

SARDAR KRUSHINAGAR-385506
District : BANASKANTHA

Advertisement No. 1/86.

Applications in prescribed form are invited for the post of Director of Extension Education in the Gujarat Agricultural University. The candidates who fulfil the following qualifications and desire to apply may send their applications with six copies of authenticated bio-data through proper channel to the Registrar, Gujarat Agricultural University Sardar Krushinagar-385506 Dist. Banaskantha, (Gujarat State).

1. Name of Post : Director of Extension Education

2. Pay Scale : Rs. 1500-60-1800-100-2000-125/2-2500 plus usual other allowances.

3. QUALIFICATIONS AND EXPERIENCE

ESSENTIAL

(i) A High Second class Bachelor's Degree in Agriculture or Dairy or Veterinary Science or Animal Husbandry.

(ii) A Ph.D. Degree OR any other qualification equivalent to Ph.D. in Agricultural Sciences.

(iii) At least 10 years experience in teaching and/or Research and/or extension work of which not less than 5 years will be in field of extension.

PREFERABLE

(i) Significant accomplishments in the field of Extension Education

(ii) A good knowledge of the educational system prevalent in the world and familiarity with modern concepts of organisation and co-ordination of teaching, research and Extension activities.

AGE : Below 50 years.

(1) Age relaxable in the case of outstanding candidate and in case of a person already in the employment of the University.

(2) In exceptional case, the requirements of Second class Bachelor's Degree may be relaxed.

(3) In exceptional case a candidate with degree in any subject of the allied sciences may be considered.

(4) Ph.D. degree relaxable in case of a person having Master's Degree in the subject with eminence as evidenced by published papers of academic excellence in scientific journal or production of important scientific.

(5) If an employee of the University is appointed to this post he shall get his pay and pay scale plus Rs. 250/- per month as a special pay.

(6) Retirement age of the selected candidate is 58 years and he is governed by Pension Scheme and General Provident Fund Rules. He will also be appointed on two years of probation, and other service conditions will be applicable to him as per Gujarat Agricultural University Rules amended from time to time.

Application forms and other terms and conditions can be had from the Registrar, Gujarat Agricultural University, Sardar Krushinagar-385506, Dist. Banaskantha

Gujarat State on cash payment of Rs. 2/- (Money order will not be accepted) or by sending crossed Indian Postal Order of equal amount issued in favour of "Comptroller," Gujarat Agricultural University, Sardar-Krushinagar alongwith the self addressed envelope (23 x 11 cms.) affixed with Rs. 1.30 paise postage stamps.

The candidates already in the service of this University have to apply through their respective officers in prescribed forms with six copies of authenticated bio-data without I.P.O. All candidates should send their application through proper channel. All candidates called for interview will have to attend the same at their own cost.

INSTRUCTIONS

(1) The candidates who have applied for the above post earlier vide advertisement No. 3/85 dated 7-5-85 given by Gujarat Agricultural University need not apply again but they shall inform this office by separate letter.

(2) The last date for receiving applications complete in all respect is 15-3-1986.

(3) The University reserves their full rights to fill up or not to fill the post and to give or not to give appointment to the candidates selected by Selection Committee.

(4) Incomplete application will not be considered.

(5) Canvassing in any form will completely disqualify a candidate for employment under this University.

(6) The person selected from teacher's cadre from this University can keep his lien of teacher's cadre.

R. J. Patel
REGISTRAR

UNIVERSITY OF RAJASTHAN

JAIPUR

Advertisement No. Estt./II/86/II Dated :

Applications are invited (through proper channel in case of those who are already in employment) so as to reach this office on or before **28th February, 1986** in the prescribed form obtainable from the Registrar's Office on pre-payment of Rs. 4/- (Rs. 4 extra in case required by post) for the following posts :

1. Additional Registrar-1

Scale of pay : Rs. 1600-50-1800-60-2100-75-2325.

2. Associate Director, Deptt. of Adult and continuing Education-1

Scale of pay Rs. 1500-50-1800-60-2100-75-2250.

3. Dy. Librarian-1

Scale of pay: Rs. 1100-50-1600 (U.G.C.)

4. Asstt. Editor, Index India-1

Scale of pay Rs. 700-50-1100-40-1300 (U.G.C.)

5. Assistant Press Manager-1

Scale of Pay : Rs. 1000-30-1300-40-1500-50-1800-60-1860.

6. Public Relations Officer-1

Scale of pay Rs. 1000-30-1300-40-1500-50-1800-60-1860.

7. Stenographer Grade I-12

Scale of pay : Rs. 660-20-900-25-1000-30-1240.

8. Coach-2 (one for Hockey and one for Cricket)

Scale of pay : Rs. 780-20-900-25-1000-30-1300-40-1460.

9. Electron Microscopist-1

Scale of pay : Rs. 1200-50-1300-60-1300

Notes :

- (i) Details of qualifications etc. will be made available with application forms.
- (ii) Number of posts indicated above may be altered by the University without notice.
- (iii) Retired persons need not apply.
- (iv) Incomplete applications and/or applications received on plain paper and/or after 28th February, 1986 will not be entertained in any case.
- (v) Dearness and other allowances are admissible as per University rules.
- (vi) Candidates will be called for interview at their own expenses.
- (vii) Applications received in the prescribed proforma for the post of Associate Director, Deptt. of Adult and Continuing Education. in response to the previous advertisement (No. Estt./II/85/19221 dated 9.11.85) will also be considered and, therefore, candidates who have already applied earlier need not to apply again. They may, however, send an intimation to the said effect.
- (viii) 16% posts for Scheduled Castes, 12% posts for Scheduled Tribes and 3% posts for Physically handicapped candidates are reserved and will be

filled in as per rules formulated by the University in this respect.

N.K. Sethi
REGISTRAR

MEERUT UNIVERSITY

MEERUT

Applications are invited for the following teaching posts. The applications on prescribed form should reach the REGISTRAR : MEERUT UNIVERSITY : MEERUT-250005 latest by **20.3.1986**.

- A. One Post of Professor in each subject (1) Economics (2) Education in the grade of Rs. 1500-60-1800-100-2000-125/2-2500.

Minimum Qualification

1. An eminent scholar with published work of high quality, actively engaged in research. Ten years experience of teaching or research experience of guiding research at doctoral level.

OR

2. An outstanding scholar with established reputation who has made significant contribution to knowledge.

- B. One Post of Reader in each subject (1) Botany (Temp. likely to continue), (2) Psychology (leave vacancy likely to continue) (3) Ag. Botany (permanent) in the grade of Rs. 1200-50-1300-60-1900.

Minimum Qualifications for the Post of Reader (other than Reader in Ag. Botany).

1. Good academic record with doctorate degree or equivalent published work and active engagement in research or innovation in teaching methods or production of teaching materials, and
2. Five years experience of teaching or research including atleast three years as Lecturer or in an equivalent position. Provided that the requirement contained in clause (2) may be relaxed in the case of a candidate who in the opinion of the Selection Committee, has outstanding research work at his credit.

Minimum Qualifications for the post of Reader in Ag. Botany

High Academic career with a Ph.D. or higher Research degree and having at least 5 years research/teaching experience in a University or a recognised institution, should have distinguished himself as a researcher and should have competence to give post M.Sc. courses and guide research.

- C. One post of Lecturer in each subject (1) Psychology (Temp. Likely to continue), (2) Russian Language (leave vacancy for one year), (3) Ag. Botany (Permanent), (4) Sociology (Leave

vacancy likely to continue) in the grade of Rs. 700-40-1100-50-1600.

Minimum Qualifications for the Post of Lecturer (other than Lecturer in Ag. Botany).

- (1) (i) A doctor's degree or research work of an equally high standard in the relevant subject and
 - (ii) consistently good academic record with First or High second class Master's degree or an equivalent degree of a foreign University in the relevant subject.
- (2) Where the selection Committee is of the view that the research work of a candidate as evident either from his thesis or from his published work is of very high standard it may relax any of the qualifications prescribed in (1) (ii) above.

Minimum Qualifications for the post of Lecturer in Ag. Botany.

M. Phil in I Division or a first class in High School, Intermediate, degree and post graduate examinations or first class Post graduate degree or M.Phil with a Ph.D. degree or an average second class career taking into consideration High School, Intermediate Degree and post-graduate Examinations with a Ph.D. degree.

NOTE : Other things being equal, preference will be given to the scheduled caste/Tribe candidates who are considered fit. Such candidates should attach certificate to that effect from the District Magistrate.

Prescribed application form can be obtained by sending a request to the Dy. Registrar (Accounts) Meerut University, Meerut-250005 alongwith a self-addressed envelope of size 23 x 10cm. and stamped worth Rs. 2.30 accompanied by a Bank draft of Rs. 15/- in favour of the Finance Officer, Meerut University, Meerut or by cash payment of Rs. 15/- at the cash Counter of the University. I.P.Os or M.Os. are not acceptable. While requesting for application form, please mention "Application for teaching Post" on the envelope.

Chander Bhan
REGISTRAR

INDIRA KALA SANGIT VISHWAVIDYALAYA

KAIRAGARH (M.P.)

CORRIGENDUM

Corrigendum to Advertisement No. AS/Dev./875 dated 4.11.1985.

In modification of last paragraph, fresh applications are invited on plain paper in four copies with Postal Order of Rs. 10/- for Professor and Rs. 5/- for Lecturers, from those who have already applied in response to earlier advertisement dated 14.3.1984, for the following posts: 1. Professor in Instrumental Music, 2. Lecturers in Sitar and Print Making. Last date for receipt of applications: **February 28, 1986**.

M.K. Gangajiwale
REGISTRAR

IMMUNIZE & PROTECT YOUR CHILD

Immunization can protect your child from such dreadful diseases as neonatal tetanus, poliomyelitis, diphtheria, whooping cough, tetanus, tuberculosis and measles. Bring your child at the right age for the full course of the vaccines to the nearest primary health centre, dispensary or hospital where free vaccination facilities are available.

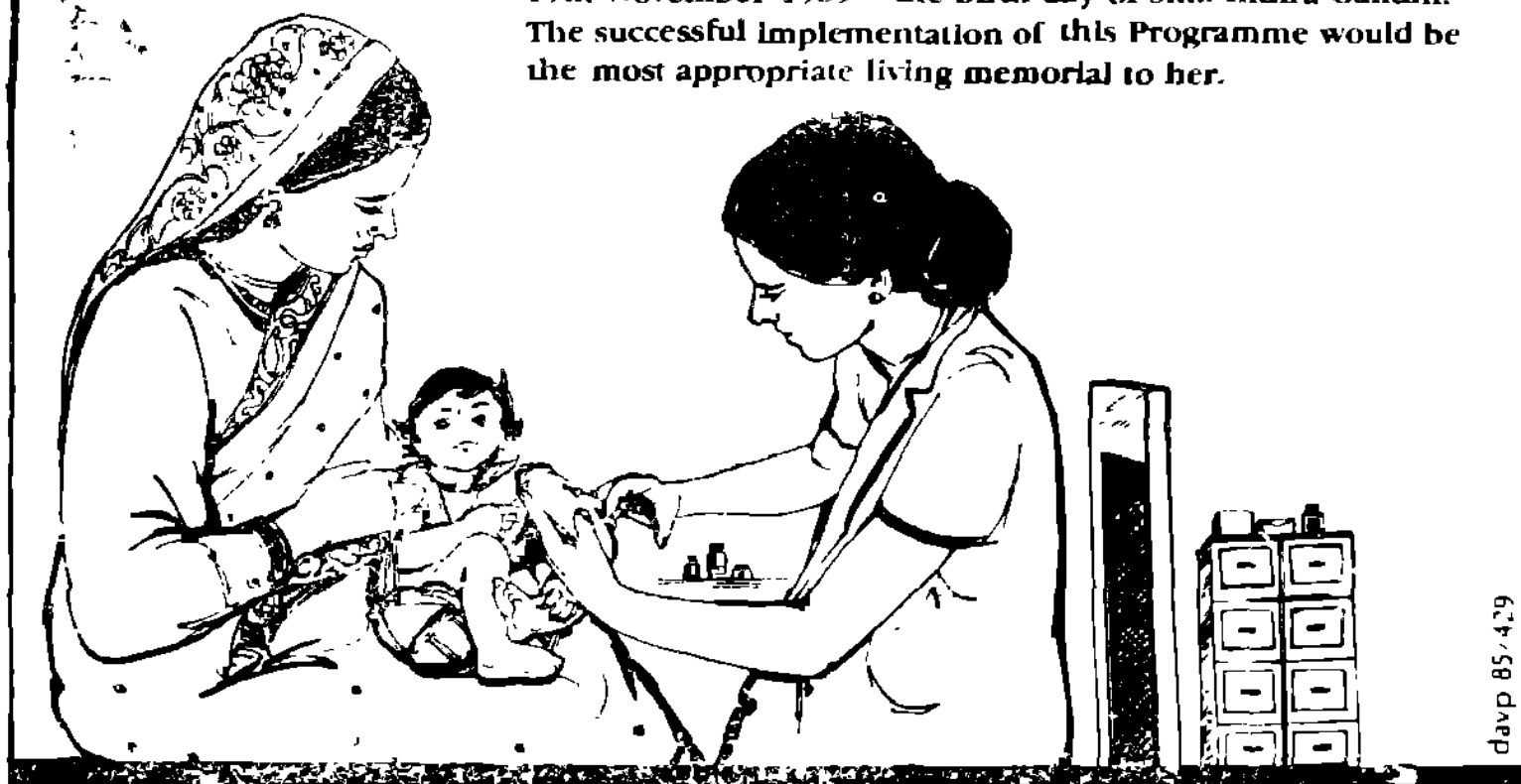
Immunization Schedule

Age	Vaccine	No. of doses	Disease
<ul style="list-style-type: none"> • Pregnant Women 16-36 weeks 	TT (Protects both mother and child)	2	Tetanus
<ul style="list-style-type: none"> • Infants 3-9 months 	DPT	3	Diphtheria, whooping cough, Tetanus
	Polio	3	Poliomyelitis
	BCG	1	Tuberculosis
9-12 months	Measles	1	Measles
18-24 "	DPT	1 (booster)	
	Polio	1 (booster)	

* Give one dose, if vaccinated previously

The interval between 2 doses should not be less than one month. Minor coughs, colds, mild fever and diarrhoea are not considered contra indications to vaccination.

Universal Immunization Programme has been launched on 19th November 1985 — the birth day of Smt. Indira Gandhi. The successful implementation of this Programme would be the most appropriate living memorial to her.



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